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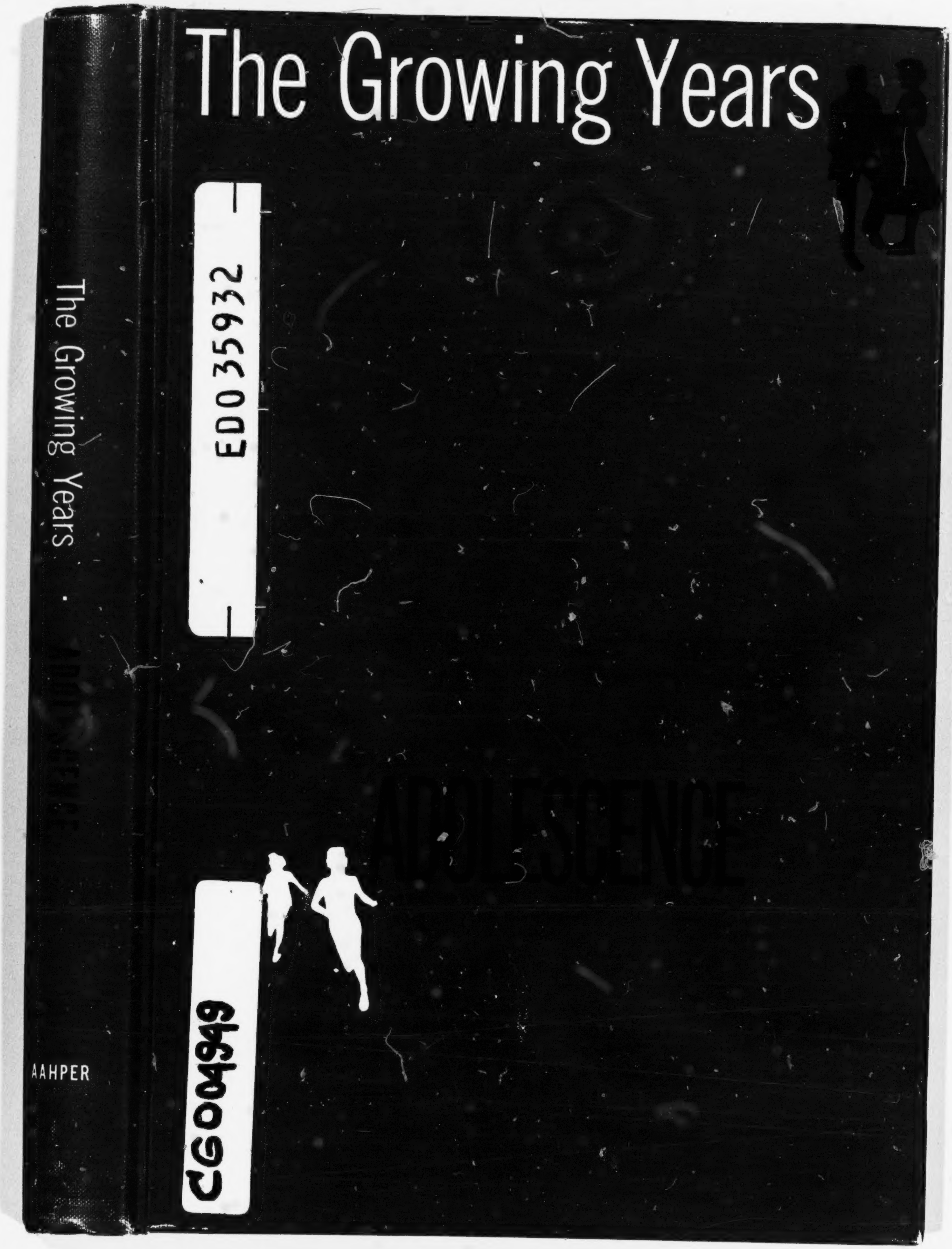
ABSTRACT

DEALING WITH PROGRAM IDEAS FOR SECONDARY SCHOOL YOUTH, THIS BOOK IS A COMPANION VOLUME TO THE 1954 YEARBOOK OF THE AMERICAN ASSOCIATION FOR HEALTH, PHYSICAL EDUCATION, AND RECREATION, AND IS INTENDED TO SPEAK TO TEACHERS AND SUPERVISORS OF HEALTH, PHYSICAL EDUCATION, AND RECREATION. THE BOOK IS DIVIDED INTO FIVE PARTS, EACH CONTAINING CHAPTER CONTRIBUTIONS BY INDIVIDUAL AUTHORS. SECTION HEADINGS ARE: (1) FOUNDATIONS; (2) HEALTH AND SAFETY EDUCATION; (3) PHYSICAL EDUCATION; (4) RECREATION; AND (5) TODAY AND TOMORROW (CHALLENGES AND PROGRAMS FOR THE FUTURE). (CJ)



The Growing Years

ADOLESCENCE

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ADOLESCENCE

A forward look at meeting the health, physical education, and recreation needs of adolescent boys and girls

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ANN E. JEWETT AND CLYDE KNAPP, EDITORS
1962 YEARBOOK
AMERICAN ASSOCIATION FOR HEALTH, PHYSICAL EDUCATION, AND RECREATION

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Preface

Dealing with ideas concerning programs for secondary school youth, this book is expected to serve as a companion volume to the 1954 Yearbook of the Association, which was concerned with the health and activity needs of children. The intended audience of this 1962 Yearbook includes teachers and supervisors.

Both the Investigating Committee and the Yearbook Commission desired a treatment which would present ideas and stimulate thinking. Emphases are upon needs and a forward look. Neither a how-to-do-it nor a blueprint-for-the-technician approach is used.

Authors were encouraged to express freely their own ideas and to avoid describing the status quo. Readers will not agree with all ideas expressed, but they should expect to have thought-provoking experiences.

Appreciation for the excellent contributions of the authors is expressed sincerely and with gratitude. These exceptionally competent people have worked and created to serve youth and to serve health, physical education, and recreation—and have done so with no financial reward whatever. This realization is heartwarming.

Appreciation is expressed for generous help by the staff liaison and the director of publications of AAHPER.

ANN E. JEWETT
CLYDE KNAPP

Contributors

Catherine L. Allen, coordinator of special activities, Tufts University; and professor of physical education and recreation, Bouvé-Boston School, Medford, Massachusetts

Margaret A. Bourne, chairman of girls' health and physical education, Evanston Township High School, Evanston, Illinois

Oliver E. Byrd, M.D., executive head, Department of Health Education, Stanford University; and consultant, Alameda County Schools

Josephine Christaldi, supervisor of individual remedial physical education, Board of Public Education, Philadelphia, Pennsylvania

H. Dan Corbin, professor of physical education and director of recreation, Pennsylvania State College, Lock Haven

Charles C. Cowell, professor, Department of Physical Education for Men, Purdue University

Howard G. Danford, associate professor, Colorado State College, Greeley

Donald B. Dyer, assistant superintendent of schools in charge of municipal recreation and adult education, Milwaukee Public Schools

J. Roswell Gallagher, M.D., chief, Adolescent Unit, Children's Hospital Medical Center, Boston; and lecturer on pediatrics, Harvard Medical School

Fred V. Hein, director, Department of Health Education, American Medical Association

R. Stewart Jones, chairman, Department of Educational Psychology, University of Illinois

Leonard A. Larson, director, Physical Education for Men, University of Wisconsin

Bernice Milburn Moore, assistant to the director, Hogg Foundation for Mental Health; and consultant, Home and Family Life Education, Texas Education Agency

Harry Estill Moore, professor, Department of Sociology, University of Texas; and editor, *Southwestern Social Science Quarterly*

Mabel E. Rugen, professor of health education, University of Michigan

Leo J. Samuelson, director of health, physical education, and athletics, Evanston Township High School, Evanston, Illinois

Julian W. Smith, director, Outdoor Education Project, American Association for Health, Physical Education, and Recreation; and associate professor, College of Education, Michigan State University

Willard B. Spalding, professor of education and chairman, Division of Education, Portland State College

Arthur H Steinhaus, professor of physiology and dean emeritus, George Williams College

Celeste Ulrich, professor of physical education, Woman's College, University of North Carolina

Maryhelen Vannier, professor and director, Women's Division, Department of Health and Physical Education, Southern Methodist University

Contributors

Contributors to "Future Programs," Chapter 19: **CHARLES K. BRIGHTBILL**, head, Department of Recreation, University of Illinois; **ROSALIND CASSIDY**, professor of physical education, University of California, Los Angeles; **DOROTHEA M. LENSCH**, director of recreation, City of Portland, Oregon; **ELEANOR METHENY**, professor of education and physical education, University of Southern California, Los Angeles; **HAROLD D. MEYER**, chairman, Recreation Curriculum, University of North Carolina, and consultant, North Carolina Recreation Commission; **BERNICE R. MOSS**, professor of health education, University of Utah; **JAY B. NASH**, professor emeritus, Department of Physical Education, Health, and Recreation, New York University; **DELBERT OBERTEUFFER**, professor of physical education, Ohio State University; **ELENA M. SLIEPCEVICH**, director, School Health Education Study, Washington, D. C. (on leave from Ohio State University, 1961-1963); **W. K. STREIT**, director of health and safety services, Cincinnati Public Schools; **JESSE FEIRING WILLIAMS, M.D.**, emeritus professor of physical education, Columbia University.

Photographs

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Nelson Medina, University of South Florida: page 130.

Investigating Committee

Robert Clark, Odessa High School, Odessa, Texas

Samuel M. Cooper, Bowling Green State University, Bowling Green, Ohio

Genevie Dexter, State Department of Education, Sacramento, California

Margaret M. Duncan, Northern Illinois University, DeKalb, Illinois

Charles E. Forsythe, Michigan High School Athletic Association, Lansing, Michigan

Frances M. Kidd, Public Schools, Minneapolis, Minnesota

Patricia Kuhl, North Senior High School, Great Neck, New York

Max Talbert, Brigham Young University, Provo, Utah

Robert Yoho, State Department of Public Health, Indianapolis, Indiana

Clyde Knapp (chairman), University of Illinois, Urbana, Illinois

Rachel E. Bryant, staff liaison, AAHPER

Yearbook Commission

Josephine Christaldi, Board of Education, Philadelphia, Pennsylvania

Dana Clark, University of Connecticut, Storrs, Connecticut

H. Dan Corbin, Pennsylvania State College, Lock Haven, Pennsylvania

Genevie Dexter, State Department of Education, Sacramento, California

Ted Gordon, City Board of Education, Los Angeles, California

Frances M. Kidd, Public Schools, Minneapolis, Minnesota

Elena M. Sliepcevich, Ohio State University, Columbus, Ohio

Ora Wakefield, Public Schools, Nashville, Tennessee

Ann E. Jewett (co-chairman), University of Illinois, Urbana, Illinois

Clyde Knapp (co-chairman), University of Illinois, Urbana, Illinois

Rachel E. Bryant, staff liaison, AAHPER

Foreword

The Fifth Yearbook of the AAHPER represents the finest example of what can be accomplished through united professional action. This publication is the work of many people, at many levels of education, in many areas of learning, exemplifying many different approaches to the health, physical education, and recreation needs of adolescents in our society. Their knowledgeable suggestions, expert judgments, and provocative opinions are brought before readers through the operation of our Association structure.

At the Portland, Oregon, AAHPER Convention, the Board of Directors heard the report of the Committee To Investigate the Desirability of and Prepare a Suggested Outline and Plan of Action for a Yearbook for Secondary School Youth, which had been studying its assignment for several years. The work of this group was accepted and approved by the Board; it served as the starting point for the study and planning of the AAHPER Secondary School Youth Yearbook Commission, appointed by the Board in 1959. The Commission operated under the direction of Ann E. Jewett and Clyde Knapp, cochairmen. Outstanding experts in specialized areas were asked to write the specific chapters agreed upon by the Commission members.

All those who contributed to the final achievement have written with a forward look, a sharp focus on the future. The resulting publication emphasizes best practices and provides guidelines for the achievement of excellence through a drastically revised secondary school curriculum. In so doing, the Commission members and authors have reiterated the objectives of the AAHPER, to provide programs of health education, physical education, and recreation within the best philosophical and social context of American life.

While teachers and supervisors of health, physical education, and recreation are the primary audience, this yearbook will also be useful to curriculum coordinators and administrators. Perhaps its most significant contribution will be to the young people preparing for careers in these areas of education.

The yearbook has been designed to stimulate thinking, to challenge some of the prevailing concepts. It is hoped that it leaves readers with many questions in their minds, with new and possibly controversial ideas, with inspiration, and with renewed enthusiasm for strengthening the contributions of our fields of education to secondary school youth.

The Association acknowledges with deep appreciation the professional contribution of the authors in this Fifth Yearbook of the American Association for Health, Physical Education, and Recreation.

CARL A. TROESTER, JR.
Executive Secretary-Treasurer

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part 1

Foundations

1

Growing Up in the Modern World

1. NATURE OF ADOLESCENCE

J. ROSWELL GALLAGHER, M. D.

It is highly appropriate for a book about youth to begin with a discussion of the ways in which adolescents differ *physiologically* from children and from adults. Physiological matters determine in no small part many of the needs and much of the behavior of youth. Concepts of these are basic in everyday thinking and recommendations; they are not ivory-tower irrelevancies.

Because adolescents do differ from people in other age groups, schools and recreation programs for them differ from those for younger and older people. For the same reason, medical clinics devoted exclusively to adolescents have been recently established. Apparently educators have accepted the idea that, since adolescents are different, they are entitled to different considerations, facilities, and management. They are larger and stronger than young children. They now can be expected to reason and not just to parrot facts in the classroom. (Witness the changed expectations of the language, history, and mathematics teachers.) Their interests are different—competitive athletics, the opposite sex, cars, music, and politics. Their major psychological concerns are with their acceptance by their own group, sex, the acquisition of independence, and the quest for their own identity—their own philosophy of life, personality, and future.

Many of these and other differences—the characteristics which set adolescents apart from children and adults—will be discussed in later chapters. Clearly, they need to be kept in mind when planning curriculum and activities for adolescents, when attempting to meet their needs or to understand their behavior, or when trying to avoid those careless, trite comments which suggest even less understanding than is really the case.

Obviously, neither sandboxes and paper dolls nor shuffleboard and bingo are appropriate. And such questions or suggestions as "Stand up straight," "Where do you put all that food?" "How can you spend hours before a mirror?" "Come here so Mother can fix your necktie," "Why *won't* you be more careful?" "Why *must* you lift those iron barbells?" or "Why do you have to disagree with everything your Mother says?" can be just as thoughtless and futile.

Differences Are Basic, Normal

Even those few adults who find it easier to deny that people—and age groups—differ from one another, and in this way defend their policy of treating everyone alike, must admit that basic *physiological* differences exist among children, adolescents, and adults. Obviously, too, there are even differences between adolescents at different stages of development (early, mid, and late adolescence); but since there are differences between individuals themselves, there is little more to be gained by making further distinctions between the separate phases of this age period.

What are the specific physiological characteristics of adolescence, and what implications do they have for those who deal with young people? In the first place, and before mentioning any particular trait, it should be emphasized that these are *normal* characteristics. They appear in different individuals at varying times and to varying extents, but they normally occur in all. They may be a major or a contributing cause of some problem or maladjustment; nevertheless they themselves are usually desirable and certainly as normal as they are inevitable. For instance, the change in the character of the perspiration, which most adults find offensive and which often contributes to an adolescent's oversupply of self-consciousness, is normal. Were it not to occur, other manifestations of maturity would also be absent.

Rapid Growth

The major physiological characteristic of adolescence is its *rapidity of growth.* The factors initiating this extensive and highly accelerated process, which is known as the adolescent spurt (and for which there is no counterpart in childhood or adult life), are not fully understood. It is presumed that stimuli from the hypothalamus cause the pituitary to secrete gonadotropic hormones and that an increase in sex hormones and of adrenal androgen then follows. However, what begins this process, how its rate and extent and timing are affected, and what forces influence the receptivity of various end organs to these hormones are not known.

It is known, however, that the anterior pituitary, the islets of Langerhans in the pancreas, the adrenal gland, and the thyroid gland all increase in size in very early adolescence. Some of these also increase their secretion at this time. Gonadotropins are barely detectable in the urine before puberty and then begin to appear and continue to rise to higher levels as maturation proceeds. Androgen and estrogen levels also rise; in boys the 17-ketosteroids rise from about 2 milligrams per 24 hours at age 10 to about 6 milligrams at age 16, and estrogen increases about tenfold in girls and threefold in boys in the same period.

Whatever the inciting factor or mechanism, the important fact is that growth and physical and biochemical changes are rapid and extensive. The spurt in height is the one most frequently noticed (it usually occurs between the ages of 12 and 17 in boys and from 10 to 15 in girls). The remark, "My, how he's shot up," is commonplace. It is not unusual for a boy or girl to grow several inches in a single year.

The growth spurt is not confined to linear height; there is concomitant increase in the size of various organs (heart, sebaceous glands, etc.), and in definite sequence there are first a lengthening of the legs, a widening of the hips, an elongation of the trunk, a widening of the chest, and later a deposition of subcutaneous fat and finally an increase in muscle mass.

These processes of physical growth vary widely from one adolescent to another in the time (i.e., the chronological age) at which they begin and cease, in their extent, and in the rate at which they proceed. There is, however, a consistency in the *sequence* in which they (and the various secondary sexual characteristics) appear. One can be sure, for instance, that, when a marked acceleration in leg length begins, an increase in trunk length will follow.

Nutritional and Activity Needs

The nature of these growth processes has certain obvious implications. The primary one is the increase in nutrition necessary to sustain them. Furthermore, these growth demands upon nutrition come at a time when it is usual to expect adolescents to be extremely active. No wonder their appetites are prodigious. If they are to grow and to spare their body stores, they need more protein (the "building blocks of tissue"), more minerals, more calories than ever before—or ever again. Small, hasty breakfasts and snacks at lunch are not enough, either in quantity or in protein content.

Nutritional needs also have implications for adolescents who are excessively fat. During this growth period, it is not desirable to reduce the caloric intake drastically and indiscriminately. Protein, minerals, and vitamins must be kept at high levels if proper growth is to be sustained, but total calories—particularly from carbohydrate—can be cut. Most effective and desirable of all, exercise should be increased so that excess calories will be burned and food stores not further increased.

Billy's mother finally sought her doctor's advice after she had tried many reducing diets for Billy without much success. He would lose weight for a short time; then she would relax her vigilance, and he would quickly regain at least all of what he had lost. "He just eats too much, Doctor. I know 14-year-old boys have big appetites, but if I don't watch him, he'll eat tremendous meals. He's always eating between meals. Even when he's watching television or reading, he nibbles away at something. On the other hand, he eats very little breakfast. I don't think he has as much pep as he used to have either. Maybe these 'blitz' diets I tried on him aren't a good idea, but he just *has* to lose. I can't have him going on this way. He'll end up as fat as his father!"

Those very low calorie diets—and also low protein diets—were obviously not suitable for an adolescent day after day, but the mother's remarks that most impressed the doctor were the ones which suggested that he was very inactive and that his mother was overanxious about his not becoming like his obese father. The doctor urged that Billy later come in alone to see him and that this be made *his* problem, not his mother's. He also made a few suggestions to the mother which would give Billy an adequate breakfast and which would maintain his diet at a reasonable caloric level but would keep its protein, minerals, and vitamins high enough to meet his growth needs.

At Billy's first visit, little was said about his excessive weight; most of the conversation was about his lack of interest in sports and the generally inactive life he led. It quickly became clear that he avoided games because he was not good at them and that, imagining that boys and girls did not like him, he sat by himself at home. With encouragement and some backstage planning, it was possible to get him to accept some coaching in swimming (a sport at which he had some skill and from which he had not been rejected by his companions). As his skill increased, so did his interest; and as his activity increased, he not only became better adjusted but also gradually lost his excess fat.

Muscles Develop Late

The fact that muscle mass is developed last is also an important consideration. Boys wish early to imitate their older brothers and adults and to carry out those activities which require more strength and better support about the joints (particularly the knee) than they yet have. Few will accept advice to defer stressful sports (which seem inevitably to carry the most prestige value), so there is little alternative except to foster early the development of greater strength. Nowadays many boys have so few (if any) strenuous chores to do that it is doubly likely that young adolescents will have little muscular strength; they must be given high-resistance but properly graded exercise so that they may develop the strength they need.

Changes in Secondary Sexual Characteristics

Just as there are rapid increases in body size so are there also rapid advances in secondary sexual characteristics. Pubic, axillary, and (in boys) facial and chest hair appear, the genitalia and breasts enlarge, and boys' voices deepen. Though normally occurring at widely varying times and rates, these developments follow, as do other aspects of body growth, a sequence which is usually the same for all members of the same sex. The first evidence of the beginning of the development of secondary sexual characteristics in boys is the enlarging of testes and scrotum (at some time between 10 and 14 years) ; often there is a slow growth of pubic hair at about the same time.

About a year later the height spurt, the increase in penis size (between ages 13 and 17), and the more active growth of pubic hair occur; commonly, axillary hair and facial hair appear about two years after pubic hair has begun to appear. The voice-deepening is a slow and gradual process; it usually begins about the time that pubic hair becomes abundant. At this same stage of development, there are changes in the male breast; the areola increases, there is frequently a diffuse increase in subareolar mammary tissue, and more often small nodules develop under the papillae. These nodules and the increase in mammary tissue usually disappear within a year or two; they are presumed to result from the stimulation provided by the rise in estrogen levels.

Implications of Physiological Changes

These physiological changes have two major implications. First, they suggest the likelihood that many boys may anxiously think that their sexual growth is retarded and not likely to proceed to an adult state. Second, they may think they have some abnormality which is producing feminine characteristics in them. Dreading to be different, confusing not being average in time or rate or extent of maturing with being abnormal, and not understanding that it is normal for males to have an increase in female hormone (estrogen) levels during adolescence, it is little wonder that they become worried. They need, at such a time, facts and patient reassurance. To tell them to forget it does no good. To teach them the facts of *average* growth and development (whether these have to do with expected height for age or time of menarche or age of voice change) without putting major emphasis on the normal variability and wide ranges of these phenomena only incites or adds to their anxiety. It is little wonder that, believing something is irreparably wrong with themselves, they avoid locker and shower rooms and become irritable and preoccupied.

The Slow-Maturing Boy

"I don't know what's gotten into Teddy, Doctor. He used to be so happy. At the table he was a regular chatterbox, and he always had his friends running in and out of the house. Now he hardly says a word. He snaps at me and his sister if we ask him a simple question, and he doesn't seem to have as many friends. Now he says he isn't going out for the swimming team this winter. I guess I just don't understand 15-year-old boys. Something *must* be wrong, but I can't find out what it is. Maybe you can."

Teddy did have a problem, but even though it had produced all the signs his mother noticed, it wasn't a very unusual or mysterious one. When he visited his doctor alone for a checkup, all became clear. No questioning was necessary; his reluctance about undressing and being measured was enough to indicate the nature of his problem. But when he was given the opportunity to talk about his worries and to be reassured, he soon began to regain his cheerfulness and to resume his old activities.

"I don't know why I ever got so upset," he said. "Last year it was all right, but this year when I went back to school everybody seemed to have grown a lot over the summer. Some of the fellows had even started to shave. I seemed like a baby. Then one of the new fellows said, 'Hey, who's that runt who's tagging along? Does your mother know you're out?' I guess that did it. Anyway, I got worrying about whether I'd ever grow and why I didn't mature—you know what I mean. For some reason I was ashamed to ask, and I didn't want anyone to find out. I really didn't want to come to see you—but I'm glad I did."

Sexual Maturation in Girls

As in the case of boys, there is also a wide range among girls in chronological ages and in rates at which the signs of sexual maturity develop. Budding of the breasts is usually the first sign of the onset of puberty; occasionally some pubic hair appears a little earlier. These normally occur at some time between 8 and 14 years of age. During the next year or two, the breasts and pubic hair develop further, the height spurt occurs, the hips become wider, and toward the end of that period the menarche takes place (normally between ages 10 and 17).

Though it indicates that considerable estrogen is now being produced, the menarche is not evidence of complete maturity and reproductive function. With higher levels of estrogen, the size and configuration of the uterus will have changed, and its basal cells will have become thickened and acidophilic; however, the initial irregularity of the menstrual cycles and their freedom from severe discomfort are signs that progesterone is not being formed and that ovulation has not yet begun. Usually it is a year or two after menarche before the cycles are fully mature.

Again, regardless of the time of onset of puberty or of the rate at which these processes develop, this sequence of events is usually followed: when one observes, for instance, the budding of the breasts, one can expect that sooner or later (providing no unusual endocrine disorder, nutritional disease, or long-standing chronic illness is present) the height spurt, the menarche, and ovulation will follow. How soon, how extensive, or how prolonged the height spurt or the breast development will be or when the menarche or ovulation will occur is, however, impossible to predict. It is important to remember that the menarche, which comes at a time when girls become "weight-conscious" and wish to try reducing diets, brings increased need for protein and iron.

Each of these growth phenomena is peculiar to adolescence and sets its members apart from those in other age groups. Furthermore, each has implications for those who would understand young people. The girl who, already taller than many of her friends, fears that her growth spurt may make her unattractively tall may need considerable reassurance and counseling; some find it difficult to accept being *that* different. It is a fact, however, that girls today are taller than those a generation ago, that boys too are taller, and that there are many careers for tall girls today. Girls whose predicted adult height is not over 72 inches can and should be assured that their greater than average height is not abnormal and is not an insurmountable handicap.

The Tall Girl

When Alice's mother was 15, she was five-feet-six—quite a bit taller than all her friends at Springfield High. She was self-conscious at dances, always sought out boys taller than herself, and later was very happy (and a little relieved) when a college boy six feet tall asked her to marry him.

"Maybe that's why I worry about Alice, Doctor," said the mother. "Perhaps I really shouldn't, but she's only 12 and she's just shot up this past year. She's five-feet-five already, and I'm afraid she's going to be a giant if this keeps up. I don't want her to go through what I did. Right now it doesn't seem to bother her at all—but then nothing seems to."

Alice certainly *wasn't* worried. "Oh, I'm all right, Doctor. My mother is always worrying. Lots of girls in my class are tall. I guess I'm the tallest but maybe I'll stop growing pretty soon. Can you tell if I will? I don't really care too much—girls are taller now than they used to be, I guess."

Alice was right, but her "I guess" and "maybe" showed that she would be glad to have a little reassurance and a chance to talk things over. There was every reason to believe that she would grow more—perhaps three or four inches more. However, since her maturity was greater than her chronological age would lead one to expect, there was no reason to expect that she would become so tall that it would be difficult for her to remain happy. Furthermore, she seemed to be a very stable and flexible girl whose early life had prepared her well to meet challenges. Also she was right that many girls are taller today than girls were a generation ago. Boys too are proportionately taller.

Although once in a while a girl may threaten to become so tall that her adjustment is likely to be difficult or may be so poorly adjusted that even slightly excessive height causes unhappiness, almost always it is both wise and possible to reassure these tall girls and to do no more than give them interest, support, and understanding. Many are much less anxious and need less reassurance than their mothers.

Girls Late To Mature

Girls whose menarche or breast development is late in appearing may become concerned. Though it is normal for the processes to occur at different times, girls dislike being different and begin to worry. Some become anxious when their periods are very irregular or when their flows, or duration of flows, are what they consider to be excessive. Though a girl would be wise to consult her physician when great irregularity or three or more months of amenorrhea persist a year or two after the menarche, the chances are great that these are only signs of temporary immaturity. Neither these conditions nor cramps are reasons for restricting exercise or bathing.

Chronological Age a Poor Yardstick

Throughout all these comments, there is the suggestion that chronological age is a very poor yardstick during the adolescent period. It is a fact that there really is no such person as the average 14-year-old boy or girl; at age 14 (or at 12, 13, 15, or 16, for that matter) perfectly normal young people vary widely in state and rate of growth and development. Furthermore, there is no evidence that any one time or rate of growing is better than another. Yet those of the same chronological age are likely to be pitted against each other— socially, academically, and athletically —and held up to the same expectations.

It would be wiser when planning for youth, or evaluating their needs and behavior, to judge them on the basis of assigned developmental ages, such as those which can be estimated either by an inspection of the bones as revealed by an X ray (usually the hand and wrist) or by a comparison of a boy's or girl's state of secondary sexual characteristics with the standards which have been developed by scientists. Although neither of these procedures is practical for widespread use, it is desirable to keep this principle in mind and to take an estimation of each adolescent's maturity into consideration when forming a judgment or making a recommendation. Though perhaps not very accurate, such an estimation is better than only saying, "This is good for a 14-year-old boy" or "I wouldn't expect that of a 14-year-old girl."

It is equally important that boys and girls themselves understand that chronological age is a poor yardstick. When they do, there will be less likelihood of despair because they have not yet grown or developed as have others of their age. Much as they will still dislike being different, it is easier for them to bear if they can believe that they will not always be different. Perhaps ultimately they will even be able to accept the fact that there are virtues in such differences.

Other Physiological Changes

During adolescence a variety of other physical and physiological changes occur, but most of these are of only limited significance. The blood pressure rises from childhood to adult levels;

the heart rate, respiratory rate, and oral temperature fall; the red blood cells increase in number; the total hemoglobin, the maximum breathing capacity, and creatinine levels rise.

Often of particular relevance is the increased resistance to infection which normally occurs. It is a matter of common observation that little children who seem to have one cold, sore throat, or ear infection after another usually have fewer of these after puberty. Adolescents' higher levels of androgens and other hormones, or their gradual acquisition of an adequate degree of immunity through repeated infection, may explain this resistance.

Whatever the reason, the fact that immunity to infection does normally increase permits a relaxation of those restrictions which formerly might have been necessary if repeated illnesses were to be avoided. Clearly, such relaxation is desirable if adolescents are to have unlimited opportunities to achieve those successes which will yield them confidence, if they are to avoid developing fears and self-concern, and if they are to avoid developing the resentment and frustration which unnecessary restriction is apt to bring. This does not mean that, with the onset of adolescence, caution can be thrown to the winds and all those who have required extra protection can suddenly be entirely on their own; however, it does explain some doctors' apparent inconsistency in now permitting their patients more freedom. Unfortunately it is true that some adolescents do not show this rise in resistance; for them, restrictions and prophylactic measures cannot be relaxed.

CONCLUSION

Adolescents do differ from little children and from adults. At their time of life occur physiological events which have never taken place before. Many of them will never occur again. These changes, however, are normal. Adolescence is not necessarily a time of problems, undesirable events, and abnormalities. It can be, and often is, relatively free of difficulties. This is most likely to be so when the early years have been emotionally and physically healthy ones.

For those in whom the changes of adolescence do evoke difficulties, much can be achieved by taking into account and explaining to them the nature, the meaning, and the normality of those developments which are part of the process of their leaving childhood and becoming adults.

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Growing Up in the Modern World

2. PSYCHOLOGICAL MATURITY

R. STEWART JONES

The concept of readiness for school and for various learnings in school is well known and accepted. Psychological maturity is very much like readiness. It is a readiness for the new learnings that adult life requires. Many first grade children are not ready for reading, many ninth graders are not ready for algebra, and many twenty-year-olds are not ready for learning how to raise children or how to vote. This view of psychological maturity as a readiness for the tasks that the modern world poses has the advantage of giving emphasis to the changing culture and the changing demands that it makes. It is probable that many of today's youth who a generation ago would have been ready for the tasks of that period would today find themselves lacking. Evidence that this is so confronts us in disturbing quantity.

Reflections of Immaturity

Picture a young soldier captured by the Chinese during the Korean War, lying in his bunk oblivious to the men around him until he wastes away and dies. He was a victim neither of torture nor of starvation. His death was more the result of psychological immaturity than of maltreatment. This event was repeated over and over in the prison compounds of Korea. The very few men who actively collaborated with the enemy made headlines, but they are relatively unimportant. The shocking story was that of the hundreds of men who died because they would neither fight to live nor help their fellow prisoners fight to live. This apathy, lack of initiative, and complete breakdown under frustration were not so much because of what the Chinese did as because of what we had failed to do. These men were unsophisticated, uninformed, and highly dependent upon their leaders whom the Chinese quickly removed; in short, they were immature.

There are many other reflections in our country of the failure to reach maturity. It is generally recognized that alcoholism and drug addiction are frequently concomitant with the immature personality. We have at least four million problem drinkers. One of the important developmental tasks of the young adult is learning how to adjust to marriage. That many of our young people are not ready is evidenced by the fact that one out of four marriages ends in divorce. Another readiness is that of adjusting to the world of work. Yet the greatest single cause of the loss of jobs and turnover is personality factors, not incompetence.

The Brazilians have an interesting expression which they use when bargaining with a merchant who has given them a price that they believe to be too high. They say, "Eu sou macaco velho" (I am an old monkey). The expression is derived from the observation that an immature monkey can be caught by placing a tidbit of food in a narrow-mouthed jar which has been tied to a tree. The young monkey reaches in, grasps the food, and then —even though the hunter approaches—refuses to let go in order to free his hand. Mature monkeys let go. Perhaps it is not a farfetched analogy to compare the young monkey with the immature youth who reaches for the tidbits of life but does not yet have the sense to handle them.

It is difficult to establish criteria for maturity. Not only is culture changing (and consequently its demands), but each culture and each subculture define maturity in a somewhat different way. Complex cultures with multiple values give the adolescent models of maturity that are unclear and images that gain their substance from the imagination of a television ad writer or a Hollywood producer rather than from reality. Furthermore, criteria may be poorly chosen when stated in terms of norms rather than in terms of a model. We can ill afford to be satisfied with measuring maturity by what today's average adult is or can do.

Criteria of Mature Personality

With surprisingly high agreement, various writers have outlined the developmental tasks, problems, and achievements necessary for the successful attainment of adulthood. Havighurst, for instance, sees the attainment of maturity as the successful completion of "developmental tasks" which include such items as "accepting one's physique, attaining emotional independence of adults, and achieving insurance of economic independence." His approach gives requirements based on the expectations of society. In broader but very similar terms, Cole sees becoming an adult as a composite of physical, emotional, social, moral, and intellectual maturity. Ausubel, while not denying the validity of developmental tasks, believes that all of them "can be thought of as different and mutually complementary ways in which the enhanced need for self-assertion can be satisfied." Consequently he strives to analyze underlying personality changes. His criteria for maturity depend upon basic social relationships and the status which the adolescent is able to achieve. He sees the child, who has satellized (identified) with his parents and who has achieved status in a derived fashion from them, gradually resatellizing with his peer group and finally desatellizing and gaining status in a primary way by his own efforts.

A composite of the various criteria of maturity would include the following:

1. ***Sufficient physical maturation for the necessary tasks of adult life.*** This includes such biological development as perceptual-motor skills, strength, and sexual maturity.

2. *Acquisition of the capacity for inhibition.* This would include the ability to control impulsive and hedonistic urges, to accept delays and disappointments, and to tolerate frustration.
3. *Responsibility for one's own actions and ability to face difficulties decisively, to follow a course of action with perseverance, to own up to one's shortcomings.* The younger person whose ego is still closely allied to his parents, or later to his gang, derives his satisfactions and his disappointments through others. If he damages property, he does not face the attending difficulties alone. Until he can, he is not mature.
4. *Development of mature social roles.* The older adolescent and young adult find a place in various groups and are willing to consider group interests as well as self-interests. They also develop an appropriate sex role.
5. *Learning salable skills.* Economic independence is more and more difficult to achieve in a culture that provides few outlets for unskilled labor.
6. *Acquisition of attitudes and values derived from adult rather than child society.*

In assessing the level of maturity of a given person, whether by the attainment of developmental tasks or by various measures of personality, it is difficult to differentiate between incomplete and defective development. Analysis of mental illness often reveals a life history of developmental failure. In this sense, many aberrations of personality can be thought of as maturational failures of some kind. Even when psychosis or neurosis is the product of unusual stress, it may be that society either has been guilty of producing the stress or has failed to provide the wherewithal to meet it.

Misconceptions About Maturity

In both adult and child societies, there are misconceptions about maturity that make its attainment more difficult.

Confusion of Symbols of Maturity with Maturity. There is a widespread notion, especially among adolescents, that certain behaviors denote maturity. Being able to drive a car, "hold one's liquor," and engage in sex behavior—while often present in the mature adult—obviously do not indicate maturity. To the adolescent, striving for emancipation from parents, they may be exaggerated far out of proportion. Unfortunately, adults themselves may entertain such misconceptions. These superficial symbols of maturity are "rare meat" for the advertisers who capitalize on adolescents' desires for maturity by promising to make them glamorous, irresistible, and distinctive.

Freedom and Maturity. Although emancipation from parents is a necessary step toward maturity, it does not guarantee it.

In some cultures, emancipation is never complete. In Turkey, the father is always held in respect and is obeyed even after the son is married. Yet it was a Turkish detachment of prisoners of war that, side by side with American prisoners in Korea, maintained itself and did not suffer *one* casualty as compared with nearly 40 percent casualties suffered by American troops.[1] Real maturity demands the development of a responsiveness to social expectations. This responsiveness is not learned in an atmosphere of complete permissiveness. Instead, the undisciplined child remains immature, has no guidelines for security, and acquires little tolerance for frustration. Moreover, since his home life tries to remove all pressure for conformity, he does not learn how to aspire to the realities of the roles demanded by society.

Knowledge and Maturity. Expressions such as "He knows the score" indicate a belief that one who is sophisticated in the ways of the world is thereby a mature person. Not so at all. Some of the most blasé individuals are people whose very cynicism masks a struggle for maturity that has never been won. Maturity is not only knowledge about life but an attitude toward it. The homosexual may very well know about sex, but he nevertheless maintains an immature form of behavior. The parent who believes that his "birds and bees" talk with his child discharges his responsibility for this side of maturity is making a mistake. In fact, sex information and its source, contrary to popular belief, do not seem to be related to any great extent to the development of a mature personality.

Factors Retarding Attainment of Maturity

The prolongation of adolescence in this century and in this country, as contrasted with previous periods and with other cultures, is common knowledge. The prolongation *per se* does not represent a serious problem; what does is the fact that some of the forces involved in stretching out this period of life do act to retard maturity in such a way that it is never completely attained.

Slow or Rapid Physical Growth and Poor Physical Fitness. As shown in the previous section, attainment of physical maturity poses special problems for adolescents. The way one builds his own path toward maturity depends greatly upon the way other people view him and consequently upon the way he comes to view himself. Self-images depend greatly upon the body-image.

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[1] The comparison is not altogether fair in that those in the Turkish detachment not only were volunteers but also were not given the extensive brain-washing to which American troops were subjected.

Various studies have shown the dependence of social acceptance and social maturity upon physical growth. Moreover, it has been established that teachers react to children more upon the basis of size than upon chronological age. A child who is small, weak, and physically inept is viewed by parents and age mates as immature, and even rapid intellectual development does not offset this perception. The child who is oversized for his age but physically inept and emotionally young for his size is expected to do more and to show more mature behavior than is within his capacity. The story of Ann is a case in point.

As a baby, Ann was adopted and showered with affection; however, as she grew into middle childhood, it became apparent that she was going to be a very big woman. Not only was she the largest child in her class at school but also she began to gain weight at an unhealthy rate. Her large size made her teachers as well as her parents expect too much of her. Just at a time when she needed it most, physical affection was withdrawn. When she tried to climb into her mother's lap, her mother pushed her down, saying, "You don't expect me to hold a big girl like you." Anxiety grew in the child both from the undercurrent of rejection at home and from her sense of being different at school. Unfortunately in this girl's case, the problem was intensified when she began compulsive eating as a way of punishing her parents. Ann is now a grown woman and weighs nearly 300 pounds; yet she has many of the behaviors of a child. She is impulsive, easily angered, very impatient with her own children, and still dependent upon her mother for both material and psychological assistance.

Lack of Work Experience. Within a generation the whole pattern of schooling and attainment of economic independence has changed. Children's household chores have been replaced by machines. Young people who once entered the work force as soon as they were physically able now find themselves still in school. Moreover, unskilled labor—the kind of work that the adolescent can do—is not in demand; more and more jobs require at least semiskilled workers. Consequently, youth must stay in school if they are to attain economic independence.

Many people today reach adulthood without having had a taste of real work. It is not uncommon to find young persons who cannot dig a hole with a shovel, do not know how to use a rake or a broom, and have little appreciation of either the necessity of acquiring monotony tolerance in work or of the value of their own work in a material sense.

Parental Mismanagement. Demands of the culture are transmitted to the child through the family. In this electronic age, one might say that they write the "program" for the child. Bad programming occurs when parents' own misunderstanding, their own lack of a model of maturity, and their own confusions and disagreements lead to a "garbled input." Many mistakes of parents are made with all good intentions. Simply because they perceive their own motives as beyond reproach, it is difficult for them to see where they have gone wrong.

The tragedy of this myopia is well illustrated in Jim's pathetic case.

Jim's parents were upper-middle-class people who lived in a good neighborhood and gave him all the advantages of material comfort, good schooling, and parental affection. When Jim was still a baby, his parents lost his three-year-old sister in an automobile accident. Later when Jim was five, his older brother was stricken with a highly infectious form of meningitis and died. Jim now lives in a crushing atmosphere of anxiety for his own safety and well-being. His mother drives him to and from school even though they live only a few blocks away. Ten years old and probably able to care for himself, Jim is still never left alone or even with a baby sitter. His play is supervised and he has few friends. It is hard to see how Jim will ever learn to grow up. Everything is decided for him. The tragedy is that his parents do not see what they are doing wrong. They have already decided, perhaps subconsciously, that they would still have all three children if they had been more protective.

The various forms of parental relationships with children are well known. The excellent discussion by Ausubel gives a good picture of the consequences of various forms of parent-child relationships and their effects upon personality maturation. As would be expected, both the overprotected and the underprotected have difficulty in attaining maturity—the former because his dependency upon adults for decisions precludes his learning how to face problems or to deal with social situations and the latter because the impairment of self-esteem, with the consequent anxiety, leads either to withdrawal or to retaliation against the world, neither condition allowing for mature development.

The complicated nature of the analysis of parent-child relationships may be seen in the following tabular illustration:

Parental Control	Home Atmosphere			
	Accepting		*Rejecting*	
	Boys	*Girls*	*Boys*	*Girls*
Dominative Mother—Dominative Father				
Dominative Mother—Laissez-Faire Father				
Dominative Mother—Democratic Father				
Laissez-Faire Mother—Dominative Father				
Laissez-Faire Mother—Laissez-Faire Father				
Laissez-Faire Mother—Democratic Father				
Democratic Mother—Dominative Father				
Democratic Mother—Laissez-Faire Father				
Democratic Mother—Democratic Father				

As may be noted even in this highly oversimplified pattern, there are as many as 36 different analyses needed. The child may be in a home where the mother is dominative, the father democratic. The consequences would be different if the parents were reversed in their relationships with the child, and different depending upon the sex of the child. Likewise, the relationship between the parents themselves, not depicted in the illustrative scheme, probably has an important influence.

Evidence that points to the differential effects upon personality maturation of various parental patterns is provided in a study by Opler comparing male schizophrenics. One group of men were of Irish extraction, coming from homes where they were dominated by their mothers; the other group of men came from homes of Italian extraction, where the father was the dominative personality. The differences in the expressions of immaturity as revealed in their schizophrenic symptoms were pronounced. The Irish patients tended toward greater alcoholism, denial of their sex role—with only latent homosexuality, a greater amount of fantasy and withdrawal. The Italians were more aggressive and combative, acted out their difficulties, were active in homosexuality, and were more inclined to hypochondria. This study is cited not to demonstrate that schizophrenia and immaturity are related but rather to indicate the fact that immaturity will express itself in different ways depending upon the kind of home life the individual has experienced.

Educational Implications

Growing up in the modern world requires a concerted effort toward the building of maturity by all agencies and institutions that affect our lives. The school is one such institution and the only one that has almost universal contact with children. In several direct ways it can aid in the process of achieving maturity.

First, it can help in the process of emancipation from the home. It can sponsor activities which are accepted by the home but which depend only loosely upon parental sanction and practically not at all upon parental supervision. Next, it can introduce the child to the adult world better than the home can. Not only does it provide contact with many adults but vicariously—through study, literature, athletic contests, field work, and field trips—it can give the young person an appreciation of what is going on both in the community and in the world at large.

The school can also play a vital role in the physical development of young people by teaching about nutrition, providing adequate lunches, teaching physical and motor skills, and providing knowledge of the functions of exercise in connection with physical development. It also can teach young people about growth, differences in rates of growth and strength, and how to accept and make the most of one's own physique.

The school is in a strategic position to offer student experiences in assuming responsibilities, learning and practicing self-government, and planning successful school activities. It can thus teach attitudes about the adult world not only by giving information but also by actual practice in situations that are very similar to those found in adult activities. Finally, and of foremost importance, by fostering intellectual development the school is giving a necessary prerequisite to the solution of problems that will shortly confront the young adult. It is imperative that young people learn how to think independently, make decisions for themselves, and cultivate the desire to do so. Good schools encourage intellectual independence and reward it.

If today's youth do not have the readiness to learn how to face tomorrow's problems, it means that schools have failed to teach them. Educators must do a better job.

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Growing Up in the Modern World

3. IMPACT OF SOCIETY ON YOUTH

BERNICE MILBURN MOORE
HARRY ESTILL MOORE

Personality, closely examined, resolves itself into a triptych. One frame pictures the biological; another, the psychological; and a third, the social. These three images are so arranged that each catches and mirrors much of the others even as it is perceived as a whole. Youth is the period in which these three facets coalesce into a mature personality.

This integration is accomplished through the strains and stresses, the experimentation and rebellion, the assessing and accepting of the basic values, attitudes, customs, and institutions of society, which is always apart from, and a part of, the life of each mature person. Society is, at the same time, an objective experience and a subjective response. The biological, the psychological, and the cultural elements become the materials out of which personality is developed.

The Dynamic and the Real

All living is changing. Youth is simply one segment in the flow of life from birth to death. It is not a state; it is not a stage; it does not stand apart and alone; it is within the process of *becoming*, emerging from childhood, blending into maturity. Living is constantly adapting and readapting to a world being eternally modified as part of an exploding universe.

Even in the physical sciences, the eternal verities have become variables. From the time Descartes and Spinoza pointed out the *relational* nature of mathematics, through the dynamics of the Darwinian hypotheses and the moving point of view of Einstein, man has come to see his major task as being able to change rapidly enough to keep up with a world which he himself is so radically changing and in which he must contrive to live. The impact of these changes can be seen in the affairs of everyday life and in their influence upon the development of youth.

Youth and Their Elders

Youth today are growing up in a society in which middle-aged, productive, decision-making adults are becoming proportionately fewer. Not only have medical miracles added millions to the older age groups but also, and more importantly, the "baby boom" has increased the population in the nation since 1950 by about 15 million children and youth. This adds up to the startling figure of 65 million children and youth 18 years of age and under, and 14 to 15 million more who will be of college age by 1970. Thus, fewer people in productive years are available to take care of those in the dependent stages of childhood, youth, and old age.

At the beginning of the century, nearly half of the youth were employed; by 1950 this had dropped to one-third. Even though this trend is again upward, it is different. The increase is now among youth *in* school who are employed part time rather than among those who drop out of school to earn. Amazingly, a recent study revealed that 15 percent of the boys and 9 percent of the girls 10 to 13 years old were employed. This should give pause to those who see the problems of youth as arising from idleness. An earning job, plus school, is full-time occupation.

New Places for Old

Moving from place to place for pleasure or for profit has become an earmark of American society. Curiously, people tend to move from the city to the country for pleasure, from the country to the city for profit. But this is merely another way of saying that, while the family farm and the small town furnished the setting for development 50 years ago and the city does so today, social values still remain largely dominated by our rural heritage.

But people are also moving from one section of the nation to another, taking children into new regional cultures. In general, movement is away from the heartland of the country toward the western and northeastern coastal states, from those states with a high ratio of dependent children to productive workers into the areas where the reverse is true. Within the major regions, the trend is toward the suburbs around the large cities rather than into the cities themselves; in fact, many of the largest cities are losing population to their fringe areas.

However, this movement may not be as important as it is sometimes pictured. Life has changed in the rural areas as well. Automobiles and roads on which to drive them, telephones, radios, and television sets have brought new contacts and new ideas. Rural-urban differences have been leveled to a far greater extent than statistics of family movement would indicate.

The Better To Live

Making a better living is the goal of every person and family. Increasing family income has marked the past two decades. Since 1947, average incomes of all families have risen about 60 percent, in comparison to a rise of about 20 percent in prices paid for consumer goods. This means that while in 1900 it took 4 of each 5 dollars earned by a city family to buy food, clothing, and housing, these essentials may be purchased today with only about 60 percent of the earnings. The other 40 percent brings new opportunities—and problems.

The lessening distance between living levels in the city and country is shown in the faster rise of farm family income, particularly in the South. Higher standards of living for farm families go along with almost twice as much production per worker in agriculture. Technology, larger working units, and mass production methods are now doing for the farmer what they did for the manufacturer a few decades ago. Productivity in other areas has also risen by about one-half during the past 50 years. This means that the workman now has a choice between working fewer hours for the same amount of pay and working the same hours for more pay. An indication of his decision is seen in the shortening work week.

Impact of the present economic situation on youth is reflected directly in the fact that almost one-fourth of the students 14 to 17 years old are also employed, as contrasted to only 4 percent combining work and education in 1940. Further, there has been an increase of nearly 80 percent in the mothers who are working outside the home. About 30 percent of the mothers of children under 18 and about 20 percent of the mothers of children under 6 are earners. This is a situation far different from that of the turn of the century when "good women" remained steadfastly in the home with their children and left to the men the responsibility of supporting the family. The result is an average family income today of about $5000 in cash, perhaps as high as $6000 if payment in kind and other fringe benefits are included. Home ownership, another evidence of higher income, has risen in cities from less than 40 to almost 60 percent.

Demands for Better Education

Employment has been marked by a growing demand for highly skilled workers, and uneducated youth are severely handicapped. The growing number of vocational education courses, the efforts of employment services in school and out, and the special programs of aid to the handicapped encourage more employment and higher earnings than in the past. Less apparent but more important are the lengthening of the period of preparation for earning and, simultaneously, the longer period of earning which results from a longer life span. At the same time, the shift from farm to factory has given way to a newer shift from factory to office—from industry to business, from production to service. These changes have emphasized the need for better education for youth, less difference in the work of men and women, and less difference in the wages and social status of the workers.

Decline of the family business and rise of the giant corporation have had mixed effects on the prospects of youth. Chances for ownership and control of a big business are slight in contrast with the family enterprise. However, no capital is required to rise to managerial positions of relatively high earnings and responsibilities in a large business complex. This has given rise to what has been referred to as the "managerial revolution," in which businesses are run by employees who may have little investment rather than by the owners themselves.

All of these changes make it evident that the economic patterns of a generation ago are not those impinging on the young people of today as they prepare to enter the employment market.

More Time To Play

Shortening the work day and week, plus adding holidays and longer vacations, has meant more time for parents to be with their children. At the same time, more travel, movies, bowling, and other forms of recreation have tended to draw parents and children away from the home into separate activities. Even television, hailed as a form of entertainment which would bring the family back together, has often been the focus of disputes over when and how it should be used, becoming a dividing rather than a uniting influence. It is true, of course, that much travel is done in family units, that families may go to the movies or to the bowling alleys as groups; however, this does not seem to assure a family pattern of participation in these recreation activities.

Lengthening the life span has had much the same effect as shortening the work periods. Both bring society face to face with more leisure and the problem of its investment. This is recognized by educators in combining health and recreation instruction in many schools. Measurable results are easy to see—the virtual elimination of several infectious diseases, including smallpox and diphtheria; improved public and private sanitation; reduction of the infant mortality rate to a small fraction of what it was. The over-all picture is vividly apparent in one statistic—infants born today will live, on the average, about 70 years.

Most of the advances in medical and public health have affected young people. In fact, as deaths decrease in the lower age brackets, there must, eventually, be a corresponding increase in the advanced ages.

Investment in Recreation

More than 16 billion dollars is the estimated annual investment in recreation. Of that amount, sports equipment and toys represent the biggest expenditure. Close behind come radio, television, and music. Much discussed spectator sports fall far behind movies and reading, with only about one-fourth of one of the 16 billions spent in this nonactivity.

Huge as this sum appears, it does not include public expenditures of local government agencies through more than 20,000 parks supervised by more than 75,000 paid leaders and with annual expenditures of well over a half-billion dollars.

Although cost of the nation's recreation program may seem large, it represents only a small fraction of national and private budgets. More importantly, play is the business of the growing person, the means through which he comes to understand himself and his peers. Movies, television, newspapers, magazines, and books are devoured because in them he finds, in explicit form, the models he needs to fashion his own life as society demands. In automobiles, in night clubs, on playing fields, he conducts experiments in human relations that enable him to determine what is or is not feasible to attempt.

Economic prosperity, better health programs, increased leisure, and emphasis on recreation have given the generations a new opportunity to work and play together, to bridge the gap that has traditionally separated them, and to ease the integration of youth into adult society. At the same time, the pains of relinquishing control by the elders are relieved, at least to a degree. But this, as yet, is no more than an opportunity; it is far from being a certain outcome of these new social conditions.

Youth's Families

Youth today are being reared in families as different from former times as are the current patterns of economics, health, and recreation. Parents are younger, with the actual age gap between adults and youth in the family less than at any time in history. Younger parents, of course, are the result of the steadily decreasing age of marriage from the beginning of the century. The last child is born, on the average, to women no more than 26 years of age. Remaining years are spent in rearing the children, with the last in the family entering high school when his parents are in their early forties.

Not only are parents younger in their own right, but their children are members of a family with other children. A recent study by the Scripps Population Foundation points to the stabilizing trend of the birth rate within the past few years and estimates that the average number of children per family will level off at about 3.4. Moreover, youth of this day were born into homes which had planned for them not only as the completion of the family unit but also as the rounding out of the maturing process of their parents.

Youth are growing up in families where both mothers and fathers consider themselves responsible for the development of their children. Love, affection, and support of family members are recognized as major family functions. As has been well said, "Husbands are married, and are parents, too." Such parenthood is placing new demands on youth as they grow toward maturity and is giving them rich background for development.

Preparation for marriage these days includes a long look at the years ahead. A 16-year-old mind in a 40-year-old body is not adequate equipment for companionable living after children are grown and gone. The new type of relationship demanded can come only with adequate education and broadening of role definition.

Contrary to popular opinion, research does not find the working mother with the delinquent child. A recent study of 13,000 Texas youth in high school indicates that among young persons living in homes where both mothers and fathers are employed on the *professional* level, youth adequacy is at the top. Only when education of parents is minimal, income is limited, home conditions are marginal, the family is large, and the mother's earnings are in jobs of low remuneration and long hours is the negative impact of her out-of-home work intense upon children and youth in the family. And here, more often than not, no choice of roles is involved. Her income is imperative for family survival.

The age at which youth marry decreases in periods of prosperity—a nationally observable fact in the past ten years or more. About one-fourth of all 18-year-old girls, one-sixth of all 17-year-old girls, and one-sixteenth of all 16-year-old girls are married. Young people who marry in years of real immaturity face compelling problems which they may well find they are inadequate to meet. Marriages in years of young adulthood will take place as long as jobs are available to support them or parents have incomes to subsidize them. The major problem of youth who marry young is whether the marriage will force them to cut their education short. There is real waste of talent for the nation and a not-to-be-denied hazard for future income when youth shorten the period of preparation for adulthood without sufficient education to hold jobs at an adequate level in this technological age.

Education: Key to the Future

Whether one examines these years of tremendous demand in terms of the capabilities of people, the types of employment opening up in the future, or the family functions of this day, the indisputable fact remains that education is the key to survival of the nation, the economy, and the family.

Great has been the ferment over public school education during recent years. Many suggestions have been made for meeting the demand for excellence on every front. Blatant radicals say that education for all may be impossible and certainly would be wasteful. There have even been implications that the educational system has utterly and completely failed.

Youth in the United States went to college in the fall of 1960 in spectacular numbers—almost four million young men and women. Many more would have gone if there had been a way. High schools, public and private, had an enrollment of over 10,200,000 during the year 1960-61. And 90,000 others were in formal educational institutions of this level. When there are 14,200,000 youth in high schools and colleges under the day-by-day observation of teachers, administrators, and counselors who have recently been made acutely aware of wasted talent from both lack of discovery and lack of cultivation, it seems safe to believe that fewer will be lost to themselves and their world than in previous generations. Talent, after the first blush of anxiety over Sputnik, has been expanded once again to encompass the abilities of youth in all phases of endeavor for the well-being of the nation rather than the abilities of only those gifted in mathematics and the physical sciences.

Findings of the Texas Cooperative Youth Study indicate that the one most important factor in the adequacy and effectiveness of a high school youth in attitudes toward society as a whole, in concepts of relationships between persons, and in social and personal adjustment is the education level attained by his parents—

both father and mother. Since security in personality today rests upon the inner strengths learned in the home and derived from parents, the case for educated parents is overwhelming evidence of the need for educating children toward parenthood.

In God We Trust

The motto of the United States is not a set of idle words if church membership is taken as the criterion of judgment, because about 110 million men, women, youth, and children are church members. However, there are those who would question the sincerity of belief among some members. Youth themselves profess their belief in traditional religious denominations, even though many of them appear to desire clarification of the beliefs of their churches when measured against people's behavior.

Perhaps three-fourths of the youth in the nation desire more information about religions. From studies made, the information they desire is for specific applicability. While youth are often thought of as rebels, they are at the same time in a period of conversion to beliefs, attitudes, and values which will be lasting. Although over 38 million children and youth attend Protestant Sunday Schools alone, youth appear to agree with the opinion expressed by an adult who said, "Much religious education is about a mile wide and an inch deep." Youth themselves have said:

> We believe we have been taught and trained, but not effectively. Churches should make the religious aspects of life more practical so that all youth can understand the relationship between spiritual values and living. Religion must carry over into social, school, and business life.

Youth feel that within religion and through the church can be obtained personal guidance and support in meeting problems between nations, between groups within their own nation, and between themselves and people with whom they live. They are obviously appealing for faith to help meet the problems of their day. Their seeking takes the active form of church membership and participation, though they do not always find what they seek.

Today's Promise for Tomorrow

Demands upon youth by society are great. Opportunities for their development into mature personalities of worth, dignity, and sensitivity have never been greater. It cannot be denied that demands will be too heavy for some to bear, that there will be tragedy and wasted human potential, that there will be failure and frustration, that there will never be perfection, and that there may be disaster and destruction beyond comprehension. But—society in these United States today holds these promises for its youth:

The promise of mobility in their lives which will range this earth and, perhaps, the universe

The promise of increased effort to meet problems of the interrelationships among men of many cultures

The promise from the social and behavioral sciences of vast areas of new learning for living

The promise from physical science and technology of ever-expanding frontiers in earnings, in services, and in satisfactions from the economy

The promise of marriage held firmly throughout long years for richer adult fulfilment

The promise of children who are planned for and desired, with the sensitivity and security which come from growing up in an atmosphere of love and concern

The promise from the health sciences and recreation of a long and abundant life

The promise of the vital and eternal verities of a religion dedicated to the value of human life and the worth and dignity of man

The promise of a government exemplifying these same principles.

These are the promises of the present for its youth. Realization of these promises lies in the hands of youth today as they forge their own tomorrow.

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WILLARD B. SPALDING

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Secondary Schools for Today's Youth

In the foreseeable future, the people of the United States face complex and difficult problems at home and abroad. Tensions produced by these problems increase the tensions arising from personal and family problems. Many of these tensions can be reduced by solving some of the problems; however, living successfully with tensions from persistent unsolved problems will continue to be necessary for many years.

Successes in problem-solving are not achieved easily. They require effort, skill, empathy, understanding, knowledge, and devotion to improving man's lot—characteristics rarely acquired from random, casual experience. These are attributes of the educated person and result most frequently from planned experiences in educational institutions.

Other attributes such as being intellectually curious, seeking beauty, cherishing the good, communicating effectively, deepening knowledge in new fields, and enjoying play also result most frequently from planned education. As they are acquired, individuality and personality are strengthened; people become better able not only to solve problems but also to endure unsolved ones as they work toward solutions.

Decisions Affecting Secondary Education

Secondary schools, as the most advanced educational institutions attended by the majority of youth, are charged with the responsibility of producing educated persons. Their goals and their means for achieving them are subject to scrutiny and change as people's ideas change. Aims and programs to reach them deserve careful attention.

Secondary education is in a state of flux, with both internal and external forces endeavoring to shape its next crystallization. The questions of "Who should be educated?" "For what should youth be educated?" and "How are youth to be educated?" are of concern to educators and laymen alike. Decisions with respect to these questions, like basic decisions about the nature of public education at every level, are of at least three types: political, institutional, and individual.

Political decisions, such as slanting secondary education to aid national defense, are made by the Congress of the United States. Other examples of national political decisions, not as directly related to secondary education but with serious consequences for it, include extension of compulsory military service, child labor laws in interstate commerce, and provision of funds for urban renewal. State legislators, when enacting laws restricting employment opportunities for minors, have also made a decision about the age at which some youth will leave school. Local school boards, charged with political responsibility, use it to shape the form of secondary education in each school district.

The faculties and administrators of secondary schools make decisions about the institutions which they serve. Some of these decisions—the number of periods in a day, the number of counselors, ability grouping, or rules for the use of the library—may seem to relate more to institutional routine than to the shape of secondary education. But the opportunity for students to choose electives increases as the number of periods increase; counseling reduces the number of educational misfits; ability grouping affects student motivation to learn; ready access to the library promotes its use. Other institutional decisions, particularly those related to curriculum, clearly change the nature of secondary education.

Secondary education is influenced most significantly by the cumulative impact of millions of individual decisions. A parent decides that his child will have a better education than he had. A voter decides that his school taxes are too high. A boy decides that he will become an engineer. A girl decides to continue to study French. Decisions like these are being made every day, and their cumulative effect upon secondary education is great. Enrollment increases when parents keep youth in school; teachers are not available when taxes are not voted; mathematics and French classes are large when youth decide to study these subjects.

Predominant Influence of the Home

Such questions as "Who should be educated?" "For what should youth be educated?" "What should the high school curriculum contain?" and "How shall the high school be organized?" will be answered as individuals—both adults and youth—decide whether or not a young person will continue in school, what a child will do as an adult, what a youth will choose to study, and whether or not to protest a pupil's placement in a low ability group.

Individual decisions take place within the two frameworks of previous political decisions and previous institutional decisions; however, when either framework is perceived as undesirable, people work to change it. Eventually, politicians, given enough time, will reflect the opinions of their constituents. Changing institutional decisions is done somewhat more readily, but still slowly, since both professional pride and professional inertia must be overcome. But eventually, as Dr. James B. Conant said when speaking to the National Association of Secondary-School Principals in February 1960, the home determines to a large degree what goes on in school.

Current lengthy and often colorful arguments over the aims and content of secondary education provide a setting for all three types of decisions. Such issues as ability grouping, content of courses in mathematics and science, block of time versus separate periods, the grade level at which to introduce algebra or foreign language or biology are presented in mass media. They are subjects of discussion at scholarly and professional meetings. They are reflected in legislative debate and action. They are considered by individuals when making decisions with respect to secondary education. But powerful as the influence of present controversy may be, it is far less powerful, in the long run, than the picture that each individual has of himself and his children. Individual decisions will continue to be made in terms of what each person believes to be in the best interests of himself and his children.

Who Should Be Educated?

The decision about who should be educated in public high schools has been made. Increasing the age for leaving school to 18 or graduation from high school, as has been done in some states, would have surprisingly little effect in many metropolitan and suburban areas. Parents and youth have decided that youth will attend high school. These individual decisions have been made for a variety of personal reasons: "High school prepares for college"; "Mary is going to high school and she is my best friend"; "I can't get the job I want until I am 18"; "Everyone goes to high school." Whatever the reason, the result is the same: more and more youth are going to high school and will remain there for longer periods of time. *American public secondary schools are faced now with the task of educating all American youth.*

For What Should Youth Be Educated?

Recent writings about the aims of public secondary education reveal a considerable degree of agreement. Goals are derived from social demands, from the common needs of all youth, and from the special needs of each individual. Some writers, like Rickover, stress the use of public secondary schools as an instrument of national defense; others, like Conant, stress their use to ensure maximum individual development. But all agree that the objectives of secondary education are derived from these sources. Conant writes:

> The three main objectives of a comprehensive high school are: *first,* to provide a general education for all the future citizens; *second,* to provide good elective programs for those who wish to use their acquired skills immediately after graduation; *third,* to provide satisfactory programs for those whose vocations will depend on their subsequent education in a college or university.[1]

The 1958 Yearbook Commission of the American Association of School Administrators considers youth to have common needs beyond those of citizenship and vocational competence. It states two general goals for secondary education:

> The maximum development of all the mental, moral, emotional, and physical powers of the individual, to the end that he may enjoy a rich life thru the realization of worthy and desirable goals, and
>
> The maximum development of the ability and desire in each individual to make the greatest possible contribution to all humanity thru responsible participation in, and benefit from, the great privileges of American citizenship.[2]

As the Commission developed these broad goals, certain specific needs of youth were identified as developmental tasks: coming to terms with their own bodies, learning new relationships with their peers, achieving independence from parents, achieving adult social and economic status, acquiring self-confidence and a system of values.[3] Public secondary schools are viewed as responsible for helping youth complete these tasks. In terms of broad objectives, secondary education should prepare youth for:

1. Responsible participation in the privileges and duties of citizenship
2. Successful pursuit of a chosen vocation
3. Successful pursuit of further education
4. Self-realization as an adult who has completed successfully the developmental tasks of youth.

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[1] Conant, James B. *The American High School Today.* New York: McGraw-Hill Book Co., 1959. p. 17.

[2] American Association of School Administrators. *The High School in a Changing World.* Thirty-Sixth Yearbook. Washington, D.C.: the Association, a department of the National Education Association, 1958. p. 28.

[3] *Ibid.,* p. 40–60.

Are these goals accepted by individuals and used by them as they make choices in respect to public secondary education? This question is answered best by turning first to another question: "What should be the educational program of the public secondary school?" The degree to which a goal is accepted by individuals is measured by the extent to which they go to reach it. If most choices of courses and activities lead to only two of the four goals listed, then only those two are accepted by most individuals.

What Should Be the Educational Program?

Educational programs of public secondary schools fall into two categories—those designed for all students and those designed to meet special needs of some students. Programs for all students usually include study of English composition and literature; social studies, including history and American problems; health education; and physical education. Programs designed to meet special needs include elective courses in the arts, sciences, mathematics, literature, foreign languages, and vocational training. Extra-class activities are also available to meet special needs.

The question of what should go into each of these broad categories is answered neither readily nor unanimously. The content of American problems supported by Conant[4] is questioned seriously by scholars who oppose the problem-approach to learning. The content of courses in composition is another subject of controversy, with some scholars advocating strong emphasis upon rules and others advocating strong emphasis upon communication. In the field of health education, the extent to which schools should provide health services continues to arouse argument. Physical education finds itself divided between those who want strong emphasis upon fitness and those who want strong emphasis upon game skills to be used throughout life.

In respect to courses designed to serve special needs, the Illinois study of mathematics and the Yale study of the same field are typical of new developments in all the so-called college preparatory courses. Biologists have initiated a study of what should be taught in high school. The physical science proposal of the Massachusetts Institute of Technology is already in use in some schools. Foreign languages are being extended and multiplied, with new content and methods being proposed as schools add experience with language laboratories.

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[4] *Op. cit.*, p. 75.

Extra-class activities are increasing in number and scope, while critics are questioning expenditures for them with increasing vigor, whether the costs are paid by taxation or by fees. The barriers to the development of the community-centered school which were detected by Seay and Wilkinson have not been overcome.[5] In fact, increasing costs of operating high schools and the lack of a real community in some burgeoning suburbs have retarded the expected development of community-centered education.

While controversy among scholars persists, parents and youth are choosing what to study and what activities to pursue. Citizens are choosing what secondary education they will support with tax funds. To a significant degree, the secondary school curriculum will crystallize along the lines of these choices.

First, choices relating to the development of responsible citizenship seem to indicate that public secondary schools will continue to offer their present programs, with some increase in driver training and with some replacement of general social studies courses with specific courses in history and geography. Except in a few scattered areas, choices of courses intended to develop a sense of world citizenship continue to increase. Enthusiasm for student activities and student government as a means of learning democratic behavior continues strong. Science and mathematics are seen as needed by all citizens.

Second, choices with respect to vocational training occur in an increasingly complex industrial revolution. The growth of automation, the growth of the service occupations, the merger and diversification of large corporations, and the move of industry to the suburbs are obvious evidences of great change. To a degree, and where opportunity exists, vocational education tends to move into the junior college years and to become increasingly technical. To a degree, vocational education for the mechanical and building trades is becoming less highly specialized. To a degree, preparation for the service occupations is increasing. The choices of parents and youth seem to indicate less interest in preparation for specific vocations.

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[5] These barriers are discussed in Chapter 17 of *The Community School*, Fifty-Second Yearbook of the National Society for the Study of Education. The barriers include: conflicts with mores of community, difficulty of determining readiness for change within a community, misuse of community surveys, failure to understand the functions of the community school, failure to define the community to be served, failure to recognize differences among communities, ineffective community-school leadership, rigidity of staff, overworked staff, inadequate instructional materials, lack of inservice education, rigidity of school schedule, inadequate school buildings, inadequate school sites, failure to anticipate increased costs.

Third, more and more parents and youth are interested in preparation for further education. This interest produces conflicting demands upon public secondary education. There is vigorous support for stronger and better preparation for college. There is also substantial rejection of some specific actions to strengthen college preparation.

The desire for better preparation for college stems from a variety of sources. College faculties seek to raise requirements for admission. Scholarly societies seek to raise the quality of the content of secondary subjects upon which college subjects are based. Articulate spokesmen for more selective or more intellectual secondary education are quoted widely in mass media. Parents want children to have "better" college preparation.

However, when stepped-up requirements in science, mathematics, English composition, and foreign languages necessitate more and more home study, other activities of youth are reduced. Many parents hold to the idea of the "well-rounded" person, as typified by this recent remark by the father of a student in a suburban high school: "I don't want my daughter to be a 'brain.' I want her to be a young lady." He also wants her to graduate from college.

Parental resistance to changes in college preparation also strengthens whenever the changes are seen as reducing the likelihood of attending college. More and more, college education is the *sine qua non* to social mobility, replacing social class and money as means of achieving prestige and power. Social pressures continue to bring an increasing proportion of youth into college. High schools which try to oppose these pressures by imposing standards which tend to reduce the flow of youth to college will eventually yield to the forces which they are endeavoring to suppress.

A residue of proposed changes will undoubtedly persist in the public secondary school. In all subjects, principles will be emphasized more than in the past, with practices derived from them. Foreign languages will be taught earlier and longer to more students. The use of correct English will be stressed. Science and mathematics will have new content as present scholarly studies continue and their results are used. But these changes will take place faster when they are seen as ways both to increase the flow of youth to college and to increase youth's chances of success in college. They will take place less quickly when they are seen as barriers to college entrance.

Fourth, despite recent carping at "life-adjustment education," parents and youth continue to expect public secondary schools to increase their efforts to help youth grow into mature adulthood. Actions to reduce juvenile delinquency are involving more and more high schools. Social activities of youth are more and more school-centered. Programs of work experience, summer camping, and community service are slowly multiplying and broadening in scope. Emphasis upon adequate counseling and guidance increases. The health of youth is of growing concern as classes in the subject increase in number, but the extent to which the school will be involved in programs of prevention, detection, and correction is not yet evident.

Increasing involvement of secondary school youth in community life and increasing use of the secondary school as an instrument by which the community serves youth do not mean an increase in community schools. The criteria for a community school indicate that it is the center of community development and leadership. Few communities seem at all likely to hand leadership over to professional educators who would then be expected to expand and diffuse it throughout the community. Most communities seem to be deciding which of their institutions can best serve them. A park department may offer a summer program for youth in one community, a secondary school in another. A local college may survey community needs in one community, a community council may make surveys in another, and a secondary school in a third.

More and more people see the ideal community as one in which everyone has an opportunity to continue to learn, to carry on healthful recreation, to pursue cultural interests—in short, to live the good life. In some, community schools will serve as means to reach this goal. In most, a variety of institutions will be used. In almost all, one will find a rich variety of opportunities for adults and youth to achieve self-realization.

The Junior High School

Most young people face two significant transitions during the junior high school years: from childhood to adolescence and from elementary school to the senior high school. Decisions with respect to educational programs in the junior high school are being made at a time when the junior high school's responsibilities for helping pupils with academic transition are being presented strongly in professional discussions.

There are two points of view about academic transition. For many, the heart of academic transition is preparing students to complete successfully specific courses which they will study in high school. Wherever this occurs, the college preparatory function of the senior high school is likely to be the dominant influence. In these junior high schools, one may find foreign languages, a specific science rather than general science in grade 9, algebra in grade 8, and increasing departmentalization.

A second point of view, which finds strong support, holds that the heart of academic transition is development of the behaviors required by maturing youth in the senior high school program. In these junior high schools, teachers are increasingly concerned with development of intellectual skills, the higher mental processes. They recognize that intelligence grows as it is used and that a growing intelligence will be needed by all youth in the senior high school. Here the major emphasis is upon methods of teaching and learning. As Barnes wrote, "In the junior high school of tomorrow, there will be more opportunity for pupils to do a creative kind of exploring that provides the possibility of developing a deep interest, that allows research-type learning, that lingers in one field long enough to foster and cultivate a deep desire to know."[6]

Each point of view reflects a desire for the junior high school to achieve the goal of preparation for further education. But each also reflects a markedly different perception of how the goal can be achieved most readily. Decisions here are likely to be influenced by discoveries about human learning, by new proposals for content in many subjects, and—most of all—by the parents'

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[6] Barnes, Melvin W. "The Junior High School: Yesterday and Tomorrow." *Bulletin of the National Association of Secondary-School Principles* 44:375; April 1960.

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and pupils' perceptions of the ways in which a specific program has prepared students for further education in senior high school.

Undoubtedly, both types of efforts to meet the problems of academic transition will continue, will be modified as they continue, and will eventually merge. As Barnes states so well:

> There is altogether too much pursuit of the memorizing-testing-forgetting cycle in our schools. Storing inert facts rather than doing independent, creative thinking has characterized too much of schoolroom activity.
>
> Currently the emphasis on facts and skills is in the ascendancy. Blueprints for change in schools characteristically overstress the ground to be covered, the knowledge to be mastered, what pupils need to know. Testing programs reinforce this emphasis because we can easily measure these learnings with available tests. It seems to me that the new kinds of teaching equipment, language laboratories for example, are designed to further the "facts and skills" objective. The only trouble with this emphasis is its narrowness. It leaves out too much.[7]

But intellectual growth cannot occur in a vacuum. Subject matter is needed as a stimulant. And many new proposals for content emphasize the higher mental processes, providing a possible basis for synthesis of presently opposing points of view.

Junior high schools continue to help pupils with problems of developmental transition. The schools are concerned with the ultimate goals of citizenship, vocational competence, and self-realization. Decisions with respect to ways of meeting these goals are made in a relatively placid milieu as compared to decisions with respect to academic transition. But even here there is some controversy. Emphasis upon specific subjects and upon departmentalization opposes emphasis upon core programs or other uses of large blocks of time for instruction. However, many parents and pupils have discovered that course content dealing with immediate problems of individual development is unusually valuable at home and in the larger society. Core programs or other block-of-time schedules are increasing, with content drawn from the personal, social, and family relationships and problems of adolescents and from persistent social and civic problems.

In other areas of the junior high school, certain trends can be noted. Guidance responsibilities of classroom teachers are increasing. Specialized counselors are beginning to work more with parents. Health education and physical education, in adequate physical plants, are offered to every child every day in an increasing number of schools, with attention to problems of individual development. Interscholastic athletics seem to be increasing, despite professional opposition from educators, psychologists, and physicians. Homeroom programs are improving. Clubs, student government, and other activities are providing opportunities for pupils to grapple with problems of relating to, and being a part of, a group. In all of these programs, one finds increasing effort to help each student explore himself and develop an adequate self-concept based upon knowledge of his own assets and liabilities.

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[7] *Ibid.*, p. 376.

The Comprehensive High School

Three recent studies of the comprehensive high school provide contrasting and complementary criteria of excellence. Franklin J. Keller, with support from the Edgar Starr Barney Project, examined these schools with emphasis upon their adequacy in meeting the goal of vocational preparation. Conant, with support from the Carnegie Foundation for the Advancement of Teaching, studied them with emphasis upon their adequacy in meeting the goal of preparation for further education. A third study by a Commission of the American Association of School Administrators viewed these schools with emphasis upon achieving the goals of responsible citizenship and self-realization. A synthesis of these criteria follows:[8]

1. *A program of general education*

   English, with emphasis upon developing increased ability to read, write, and speak effectively

   Social science, including an understanding of American problems and of the development of Western Civilization

   Mathematics, with specialized courses to meet needs of individual students

   Science, with specialized courses to meet needs of individual students

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[8] Certain criteria are omitted from the synthesis, such as Conant's with respect to transcripts with the diploma and academic honors list and Keller's with respect to the distinction between industrial arts and vocational education. The omissions were necessary if the synthesis was to be internally consistent.

Health and physical education, with emphasis upon development of the individual's responsibility for maintaining personal and community health and fitness, and with specialized courses and activities to meet needs of individual students

Fine arts, with specialized courses and activities to meet needs of individual students

2. *A program of elective courses*

Specialized courses offered in areas of general education to meet needs of individual students will constitute a significant portion of the elective courses. Other courses, such as personal typing, will be available to all students.

Planned elective sequences in vocational education and in such subjects as mathematics and foreign languages will be open to all, but advanced courses will be open only to students who have completed prerequisite courses.

3. *Provisions for the gifted, the slow learner, the retarded reader*

Special courses or sections of courses will be organized for students at the extremes of ability to do school work. The highly gifted (not over 4 percent) may be tutored rather than required to attend some classes. Special programs for increasing ability to read will be available to all students and required of poor readers and of those with the greatest unrealized potential.

4. *Individual programming*

Each student, after advice, will select the courses which he desires to study and for which he has completed necessary prerequisites.

5. *Flexible weekly class schedule*

The school day will be at least 6½ hours long, with enough flexibility in number and length of class periods to permit each student to study the courses which he selects.

6. *Guidance*

A full-time counselor for each 250 students will help every student assess his own strengths and weaknesses and learn to live with himself, his peers, his family, and adults close to him. Each student will have at least one "friend" on the faculty.

7. *Grouping*

Students in elective courses will be grouped in terms of performance in prerequisite courses. Students in homerooms, courses in American problems, and activities not based upon talent or ability will be grouped heterogeneously. Grouping in other courses or activities will be determined by instructional needs.

8. *Appraisal*

Of pupils' progress. Two factors will be used to determine the degree of success achieved by a student: his ability as measured by tests and by past performance and his mastery of content required for an advanced course. In courses required of all students, the first factor will be given greater weight. In courses which are part of elective sequences, such as vocational education, mathematics, or foreign languages, the second factor will be given greater weight.

Of the educational program. Follow-up of drop-outs and graduates, with particular attention to those who entered in the first year of high school and remained to graduate, will yield data to be used in appraising the educational program of the school. Faculty study of the program, using criteria from a variety of sources, will be continuous. Lay committees will be used wherever they can contribute, particularly in fields of vocational education.

9. *Home-community-school relations*

In guidance. The guidance counselor will be concerned with helping parents and youth understand each other and the relationship of each to the school. He will also help teachers understand parents and youth.

In instruction. The community is used as a resource upon which teachers and students can draw to secure expert information and advice, and to which they may go to observe and learn. Youth learn to accept some of the major responsibilities of citizenship as they contribute their efforts to community agencies.

In extended services. The school is used by the community as a source of further education. The school plant is used by the community for a variety of purposes.

10. *Faculty*

Each member of the faculty is a fully trained, professional teacher who uses his skills to help each child develop to his fullest potential and who continues to keep abreast of developments in his subject field and in the profession of teaching.

11. *Experimentation*

The school will be trying out new ways to improve the quality of its programs. Work experience for all students, summer school or year-round school, teaching machines, variable class size, and other innovations will be tested and, if successful, used where appropriate.

Decisions with respect to the development of comprehensive high schools which meet these criteria take place within the framework of past Congressional actions which have established the principle that public secondary education is an instrument of national defense. Initial action with respect to vocational education, like recent action with respect to mathematics, science, foreign language, instructional aids, and guidance, stemmed from concern for the nation's ability to establish and maintain strong defenses against external enemies. Federal funds can and do purchase immediate slanting of education. The degree to which youth in secondary education will gain or lose from these funds cannot yet be determined.

Professionals in public secondary education have been divided in their reactions to Congressional action in this area, as often happens when money is available at a price which is not wholly acceptable. As a result, parental and adolescent decisions take place in a variety of circumstances with respect to the availability of federally assisted programs.

With college, junior college, employment, and marriage close at hand, controversies about "tough" and "soft" secondary education loom significantly for many youth and their parents. When "tough" is perceived as "making my boy work hard enough to be really ready for college," the idea of "toughness" is approved. But when "tough" is perceived as "making it impossible for my boy to go to college," the idea of "toughness" is not approved. Many adults who are not faced with their children's problems of college entrance favor "toughness" as a way of reducing the number of students who attend college, and so of both reducing the tax burden of public higher education and improving the quality of college graduates. Other adults are in favor of extending college education to more of the college-age population.

The conflict here, as in the junior high school, can probably be resolved best by emphasis upon intellectual growth, such as found in many new proposals for subject content. Fields in which such new proposals have not yet been made deserve careful study in order to determine the extent to which they too can contribute to the development of the higher mental processes.

A Look Ahead

As Foster Rhea Dulles states: "A final development in our evolving twentieth-century civilization which importantly influences family life and children is one that is a consequence of the technological revolution of our times and also brings together and exemplifies many of its most distinctive features. This is the growth of suburbia."[9]

Dulles and many other students of the contemporary scene see this development as eventually producing great areas of metropolitan life such as the one developing between Portland, Maine, and Norfolk, Virginia. Within these areas, "community" as known in the village, the town, or even the small city, is rapidly disappearing. Discussing the suburbs, Dulles writes:

> They are congested and crowded as a consequence of a rapidly increasing population. An almost constant flow of traffic is a raucous interruption to everyday life, and the ubiquitous automobile, for all its benefits, emphasizes the hectic pace of suburban living. The shopping centers and supermarkets have a certain impersonality about them which contrasts sharply with the friendliness of the erstwhile local grocery store or meat market. If families have more actual leisure, there is little of the leisurely atmosphere of earlier days. The suburbs are highly organized, for both adults and children, and present a pattern of living to which almost everyone is under heavy pressure to conform. There is often a competitive spirit in the air, giving a new urgency to the need "to keep up with the Joneses."[10]

Junior high schools are growing most rapidly in number and size in these areas. Senior high schools, lacking vocational education and thus not truly comprehensive schools, are increasing. Few of these new schools have established traditions, but even fewer are using this lack as an opportunity for bold experimentation. The controls of the suburban community are so strongly in the direction of conformity that most new or newly growing secondary schools endeavor to become excellent by doing well what other secondary schools are doing, with special emphasis upon college preparation. In such a social climate, the community school is unlikely to develop as rapidly or as richly as its advocates desire.

A further block to the development of suburban community schools is found in the tax load which arises when roads, sewers, police and fire protection, public health services, and other public services are increased rapidly to meet growing community needs. Extending educational services beyond traditional programs is likely to cost more than homeowners are willing to pay.

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[9] Dulles, Foster Rhea. "From Frontier to Suburbia." *The Family and Social Change.* (Vol. 1 of *The Nation's Children.* Edited by Eli Ginzberg for the 1960 White House Conference on Children and Youth.) New York: Columbia University Press, 1960. p. 17-18.

[10] *Ibid.*, p. 21.

However, the highly organized community does require locations in which organizations can meet, badminton and tennis clubs can play, children and adults can swim, lectures can be held, the American Legion can conduct its baseball program, and the League of Women Voters can discuss ballot issues. Public secondary schools can provide needed facilities.

> The impact of urbanization in its present form on American society is full of opportunities which could be beneficial in terms of the education and recreation of children and youth. It is however also full of dangerous pitfalls if some of the technical consequences of urban living are allowed to run wild. The street traffic needs and gets strict regulation, especially in neighborhoods densely populated with children. A number of other safety devices and rules have to be adopted and applied since adults cannot expect from children more knowledge and responsibility than they have had the time to acquire. The time left to teen-agers for leisure has been on the increase as the school programs have been lightened in many cases and as fewer of them work full time; this leisure time needs direction and opportunity to use it properly. Failure to provide these may cause more trouble on city streets than on scattered farms. In short, urbanization may be held to be one of the factors which create need for more and more care and planning by parents.[11]

Leadership in planning rests more with individual citizens than with employed leaders. Some secondary school teachers will find satisfaction in leadership roles. Time to fill these roles should be available to them without personal financial cost. But teachers should not be expected to fill these roles as part of their jobs, unless their secondary school teaching loads are lightened proportionately.

Suburbia is most likely to be the location of early opposition to "toughness" in secondary education, since it is already the area where "toughness" is most widely approved. The proportion of parents who desire their children to attend college is comparatively higher in suburban areas. But children's ability to complete a "tough" college preparatory course is not correlated highly with parents' desires to have them do so. As an increasing number of suburban youth fail secondary school courses, an increasing number of parents will view the school as unable to prepare children for college. The impact of accumulated disillusion about "toughness" will be interesting to observe during the next decade.

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[11] Gottmann, Jean. "The Impact of Urbanization." *The Family and Social Change.* (Vol. 1 of *The Nation's Children.* Edited by Eli Ginzberg for the 1960 White House Conference on Children and Youth.) New York: Columbia University Press, 1960. p. 205–06.

Here, also, the conflicts between demands of homework and demands of community life are likely to be strongest, with unexpected outcomes.

Vocational education has developed slowly in suburban schools, largely because of the social class structure of suburbia. As wages increase, more workers will move to the suburbs. Industrial plants are being built outside of cities, with consequent impact upon class structure in suburbs. More rapid growth of vocational education seems likely to follow close upon these changes.

At first glance, the urge toward conformity which characterizes the suburban community tends to support secondary school efforts to achieve the goal of responsible citizenship. But diversity as well as conformity is on the increase.

> Just because urban growth multiplies along a street houses which look alike on the outside does not mean that it standardizes the people who live in them. Urbanization in fact probably brings more variety, movement, and turmoil to society than was ever expected. These processes must be recognized, their great variety respected and turned into a better system of cooperation and comfort among people.[12]

Resolving the conflicts which youth find because of pressures to conform and of pressures to be different is a difficult task. It is well to repeat these goals which, when accepted fully by secondary schools, will help best the youth they serve:

> The maximum development of all the mental, moral, emotional, and physical powers of the individual, to the end that he may enjoy a rich life thru the realization of worthy and desirable goals, and
>
> The maximum development of the ability and desire in each individual to make the greatest possible contribution to all humanity thru responsible participation in, and benefit from, the great privileges of American citizenship.

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[12] *Ibid.*, p. 208.

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part 2

Health and Safety Education

56/57

MABEL E. RUGEN

3

Guidance in Solving Teen-Age Health Problems

Schools have been concerned with the health education of youth since, and probably before, Herbert Spencer asked the question, "What knowledge is of most worth?" Horace Mann, as secretary of the State Board of Education in Massachusetts, devoted his Sixth Annual Report in 1842 to the importance of teaching human physiology. The perplexing task has been to define the health responsibility of the school, the specific goals to be achieved, and the ways in which health education should be incorporated into the school curriculum. These problems are still only partially solved.

Many studies for the improvement of the secondary school curriculum have reconfirmed the importance of health education. State and local school systems have developed courses of study and curriculum guides in health education. State laws have prescribed content and time for health teaching. Health textbooks for teachers and students have continued to improve and grow in number. Excellent supplementary health-teaching materials, including visual aids, have multiplied almost to the point of confusion. More students than ever before are exposed to health teaching in secondary schools, and yet certain health problems among youth continue to persist and to increase. Why is this so?

Could it be that health education efforts and activities have too often been separated from the rest of the curriculum and treated as a "special subject" rather than as a part of the general education of all students? Perhaps those most frequently charged with the responsibility for giving leadership to the development of the health education program have been burdened with so many other special programs—frequently of greater interest to them—that they have been unable to maintain contact with the general curriculum. Specific goals and objectives for health education may not have been adequately defined either for the secondary school or for the student. The content of health education may too often be unrelated to the needs of youth. Teachers may be poorly prepared, and methods employed in planning and teaching may disregard the interests of youth and their desire to think for themselves. Other pressures and demands on the school may have been given higher priority. It could be a combination of these and perhaps other reasons.

This is a period of reappraisal for the secondary school. Educators are concerned with better education for the schools of the future. Developments such as the National Defense Education Act, the National Science Foundation, the Midwest Program on Airborne Television Instruction, and teaching machines are stimulating curriculum study and re-evaluation of programs throughout the country. What impact will these developments have on the health education of the secondary school youth during this next decade? What are some of the pressing health problems of youth which should be given high priority? How are these related to the characteristics of adolescents and to their striving to become identifiable persons?

HEALTH PROBLEMS OF YOUTH

Persistent health problems and concerns of adolescents include inadequate nutrition; undetected and uncorrected physical defects such as dental, visual, and hearing problems; inadequate precautions against communicable and other diseases characteristic of the age group; fatigue associated with lack of sleep, rest, and relaxation, and the tendency to "burn the candle at both ends"; accidents and injuries; understanding themselves and their own bodily changes as they grow from childhood to adulthood; getting along with others and adjusting to their sex role as maturing young men and women; handling their emotions; preparing for marriage, parenthood, and an occupation (perhaps a health or health-related one); and personal appearance as affected by skin blemishes, weight, physique, posture, unremediable defects, general bodily cleanliness, odors, and related conditions likely to be associated with acceptance by themselves and by their peers.

In addition, there are the problems of teen-age drinking, smoking, and use of narcotics; of relationships with members of their own age and sex groups, the opposite sex, and other age groups; of finding, selecting, and utilizing professional health services available in the community; of knowing how best to spend the health dollar; of understanding current community health problems like fluoridation of public water supplies; of combating the many misconceptions and half-truths regarding health practices; of judging sources likely to provide reliable information about health matters; and of learning how to apply this knowledge toward becoming healthy, well-adjusted adolescents, progressing toward the goal of responsible, mature adulthood.

Many of the health problems of youth are related directly to their developmental characteristics and to the tasks which face them in growing up. In helping youth solve these problems, it is well to remember that their most important task is not only *to grow* into mature, responsible, healthy, civic-minded adults with an ethical set of values but also *to be* normal, vibrant teen-agers while they are *becoming* such adults. They must be helped to understand themselves and their bodily changes, to develop self-respect, to participate in the determination of standards that should govern their behavior, to achieve emotional independence from parents and other adults without losing love and respect for them, to prepare for an occupation and for marriage and family life, to develop skills necessary for civic competence, and to build an ethical system and set of values to guide behavior.

In guiding adolescents toward these goals, teachers help them become better health-educated and hopefully contribute to the prevention of suicides, homicides, illegitimate pregnancies, venereal disease—all reported on the increase—and of other preventable tragedies. It is obvious that the resources and abilities of teachers, parents, community health personnel, youth-serving agencies, religious groups, and youth themselves must be mobilized and coordinated to achieve this task. No one group working alone can accomplish the task, but a concerted effort promises success. The solution of health problems and the improvement of health education in the schools, therefore, become a part of the general task of improving the quality of secondary schools and education for all youth.

SOURCES OF HEALTH PROBLEMS

Study of some specific health problems will provide information that should be utilized in curriculum improvement for health education. Those selected for brief discussion are: causes of death, causes of illness and disability, impairments and handicapping conditions, health practices and health-related social behavior, concerns and interests of youth, the community and culture, and the developmental needs or tasks of youth that have implications for health education. The persistent nature of some of the problems will be pointed out.

Causes of Death

In 1960, the five major causes of death among youth 15 to 24 years of age were—in order of their frequency—accidents, cancer and other malignant neoplasms, homicide, suicide, and diseases of the heart. Three of these causes—accidents, cancer, and heart diseases—also were among the five leading causes of death in the age group just younger, 5 to 14. Only the 15-to-24 age group included homicide in the first five causes.

A study of heart disease among those under 25 years of age showed that rheumatic fever and rheumatic heart disease accounted for 7.9 percent of the deaths, and congenital malformations accounted for 81.2 percent.[1] Arteriosclerosis and hypertension became major causes after 25. These two diseases were reported to be responsible for 93.4 percent of all deaths from cardiovascular disease in the older age group.[2]

Mortality statistics as a source of youth health problems have greater significance when major causes of death are compared over a period of years. When the first five causes of death in 1959 are compared with those in 1950, two major changes are apparent. Tuberculosis, the fourth major cause in 1950, does not appear in the 1959 first five; however, homicide, which appeared as the seventh cause in 1950, rose to third place in the 1959 list. Suicide rose to fourth. An eighth cause of death in 1950, also of concern today, was complications from childbirth and abortions, which caused almost as many deaths among girls as heart disease. In this connection, a recent study by Montagu showed that infant and maternal mortality, prematurity, and stillbirth rates were all higher among adolescent mothers than among older females.

Although death rates in adolescent and youth groups are not high—comparatively speaking—except for accidents, the data are significant because they reflect higher incidences of illness, instability, and injuries.

Causes of Illness and Disability

It is common knowledge that respiratory infections—influenza, colds, sore throat, bronchitis—are the major causes of disabling illness. This has been supported by recent studies which show that about two-thirds of all acute infections discovered in a series of household interviews (1957-58) were respiratory and that the incidence of the various conditions comprising this group, with the exception of bronchitis, was from one-fourth to one-third higher among females in the 15-to-24 age group.

Accidents, appendicitis, and functional digestive disorders were other major disabling conditions among youth. Accidents were about twice as frequent among males as females, and appendicitis about three times as frequent among females as males. Functional digestive disorders were also more prevalent among females. Conditions which led to hospitalization most frequently in the 15-24 age group were appendicitis, tonsillectomies, accidents, mental and neurological disorders, and tuberculosis. Two other conditions that ranked high among disabling causes leading to confinement in bed and to hospitalization were female genital and breast disorders, and childbirth, abortions, and complications.

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[1] U.S. Department of Health, Education and Welfare, Public Health Service, National Office of Vital Statistics. *Vital Statistics of the U.S.A. 1959*, Vol. 2. Washington, D.C.: Superintendent of Documents, Government Printing Office, 1960.

[2] U.S. Department of Health, Education and Welfare, Public Health Service, National Office of Vital Statistics. *Monthly Vital Statistics Report:* Vol. 9, No. 13; July 1961.

It is predicted that, if the present rates of admission to mental hospitals continue and if the birth rate remains about the same, one out of every ten babies born today will eventually be hospitalized for mental treatment. It is estimated that about one-half of the hospital beds in the United States are occupied by mental patients and that, of the estimated 379,000 patients, over one-half are children—more boys than girls.

The estimated numbers of children and youth being treated in out-patient psychiatric clinics were as follows: 10 to 13 years old, 56,000; 5 to 9 years old, 75,000; 14 to 17 years old, 42,000 (26,000 boys); 18 to 20 years old, 15,000 (8000 boys). Of those 21 to 29 years old, there were 57,000; and in the 30-44 age group, a total of 80,000.

Public health authorities have become seriously alarmed by the increase in venereal disease infections. The number of reported cases of infectious syphilis for the total population in 1961 had tripled since 1957.[3] Venereal diseases take a tremendous and needless toll of the health of young people. Better education is viewed as an important means of correcting this situation. Through cooperative efforts of schools and health departments, suitable materials should be prepared for inclusion in health education curriculums.

Defects, Impairments, and Handicapping Conditions

Dental defects continue to be the major uncorrected condition among adolescents. Studies have shown that less than 4 percent of high school youth are free from dental caries and that, on the average, seven permanent teeth are affected.

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[3] *Today's VD Control Problem.* Joint Statement by the Association of State and Territorial Health Officers, American Venereal Disease Association, and American Social Health Association. New York: American Social Health Association, 1962. p. 5.

Gingivitis is the most common of the periodontal diseases among youth. While reports of the incidence of this condition vary greatly from different localities, there is evidence that it may affect about 40 percent of the 14- to 17-year-old age group in differing degrees of severity.

Fractures of the teeth are serious and are highest among boys engaged in contact sports. The National Federation of High School Athletic Associations reported in 1955 that 53.9 percent of all injuries in football were facial and dental.

Cancer of the buccal cavity is twice as frequent among males as females, and occurred with equal frequency (6.5 percent) among the 15-24 age group and the older groups, from 25 to 65.

The incidence of these conditions is further illustrated in the dental care obtained by 15- to 24-year-olds. According to the recent National Health Survey,[4] "fillings" were the major service received by those included in this study. The 15-24 age group had a higher percentage of dental visits for fillings than any other age group, and the percentage of visits for extractions equaled that of the 25-and-over age group.

The National Health Survey defines an impairment as a condition "which causes a decrease in or loss of the ability to perform certain functions, and includes such conditions as blindness, deafness, paralysis, and missing or deformed limbs." The incidence of such impairments was much greater in the 15- to 24-year-old group than in those under 15. Orthopedic conditions—amputations, paralysis, and other defects relating particularly to fingers, toes, arms, legs, and back—accounted for 59 percent of the impairments in this age group. Hearing, speech, and visual deficiencies, appearing in that order, accounted for 30 percent of the impairments in the group studied.

In addition to dental, orthopedic, hearing, speech, and visual defects, others could be added such as hernial and cardiac conditions. Certain types of deficiencies appear to persist in spite of the progress made in reducing the incidence of some conditions.

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[4] Sources of national data on child health problems include publications of the U.S. Department of Health, Education and Welfare, Public Health Service. Suggested references are: *Major Causes of Illness and Death in Six Age Periods* (Publication No. 440), 1955; *Summary of Health and Vital Statistics* (Publication No. 600), 1958; *Health Statistics from the U.S. National Health Survey* (Publication No. 584–C1), 1959; *Facts on Mental Illness* (Publication No. 543), 1960.

Health Practices and Health-Related Social Behavior

From the point of view of the future health of mothers and babies, perhaps the most serious poor health practice of the teenager is inadequate diet. This is particularly true of teen-age girls, who are the "poorest fed members of the family." Diets are poorer among the younger teen-agers than among those in the 16- to 20-year-old group.

Research studies on the nutritional status of persons from 5 years old to over 80, conducted in 39 states on a cooperative basis by state agricultural experiment stations and the Institute of Home Economics of the U. S. Department of Agriculture, reveal some interesting facts regarding adequacy of the diet of Americans in all walks of life. The diets of 13- to 20-year-old boys were found to be deficient particularly in vitamin C, while the diets of the girls were deficient in all but three of the nutrients studied —protein, vitamin A, vitamin C, riboflavin, thiamine, niacin, calcium, and iron. The daily caloric intake was also studied. These investigations were based on records of food eaten for periods of from 1 to 7 days, physical examinations, biochemical analysis of blood and urine samples, X rays, and other tests made as needed. About 3500 youth, 13 to 20 years old in 13 different states, were included in this study. By far the majority of these were in the secondary school age group—14 to 18. Six out of 10 girls and 4 out of 10 boys were found to have poor diets. Poor diets were those that contained two-thirds or less of the nutrients recommended for the age group by the National Research Council.

Reasons given for the poor diets of teen-age girls included skipping breakfast, eating poor snacks, drinking little milk, and fear of getting fat. Since the caloric requirement for the teen-age girl is about one-third less than that for the boy, it is particularly important that the food eaten be selected carefully.

Other health practices and health-related social behavior that deserve special comment are drinking alcoholic beverages and smoking. While reliable information regarding the practices and attitudes of teen-agers is somewhat limited, studies show an increase in experience with drinking alcoholic beverages during the past 20 years, frequently with parental consent. Likewise, there is a definite increase with age in this practice and a corresponding decrease in the attitude of disapproval of drinking. In two communities—one in New York and one in Wisconsin—from 64 to 86 percent of the 14- to 18-year-olds said they used alcoholic beverages occasionally. About two-thirds as many drank whiskey as beer and wine. Studies in Michigan and Kansas show similar results. In spite of legal restrictions on the use of alcoholic beverages by teen-agers, the practice seems to be increasing.

A recent study of the smoking behavior of teen-agers showed that only 30 percent of the ninth grade boys and 19 percent of the twelfth grade boys in the 21 high schools studied had never smoked. Among the girls, the percentages were nearly 60 for ninth graders and 32 for twelfth graders. The number who considered themselves regular smokers averaged 25.8 percent of all the boys (ninth through twelfth grades) and 13.6 percent of the girls. Of this group, 12 percent of the twelfth grade boys and 3.7 percent of the girls said they smoked a pack of cigarettes or more a day.[5]

The illicit use of narcotics, tranquilizers, barbiturates, and other drugs continues to be a problem, particularly in some cities and parts of the country. Teen-agers are frequent offenders.

The physical and emotional health problems associated with teen-age marriages and illegitimate pregnancies are many and complex. The study by Montagu, referred to earlier, indicates that the divorce rate for adolescent marriages is higher than for other age groups and that complications of pregnancy and maternal mortality are also higher among adolescent mothers. Similarly, a study of teen-age readiness for marriage among 600 high school students concluded that many of these students were immature, over-romantic, and quite unrealistic, with emotional and social characteristics "out of line" with those found in many studies to be associated with successful marriages.[6]

The incidence of illegitimate pregnancies among junior and senior high school girls varies in different communities but appears to be on the increase. In one eastern city there were 185 reported pregnancies in one year among girls under 16 years of age enrolled in 22 of the 23 junior high schools and 4 elementary schools. Most of the fathers were teen-age boys.

The importance of nutrition education is emphasized because of teen-age marriages. Icie Macy has reported that 53 percent of all girls 15 to 19 are or have been married, one-third of all brides are under 20, and one-fourth of all mothers are under 20. The number of babies born in families where the husband is under 20 has increased 165 percent—from 40,000 to 106,000—from 1940 to 1957. And 6 percent of the deaths among 18- and 19-year-old girls are due to complications of pregnancy.[7]

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[5] Horn, Daniel, and others. "Cigarette Smoking Among High School Students." *American Journal of Public Health* 49:1497+; November 1959.

[6] Family Life. "Teen-Age Marriage Readiness." *Family Life* 20:1; February 1960.

The frequency with which youth visit physicians and dentists for health purposes is an index of health care. The National Health Survey reported an average of 5.0 visits per person per year for the 15- to 24-year-old group. About two-thirds of these visits were in the physician's office and were for diagnosis and treatment. Almost twice as many visits were made by females (6.2) as by males (3.6), probably relating to the fact that this is the peak of the childbearing period. This same age group made an average of 2.3 visits to the dentist—more than either the younger age groups or the 25-and-over group. Only about one-half of this age group had been to the dentist during the past year, and 10 percent had never been to a dentist.

Interests and Concerns of Youth

Health interests and concerns of youth are related to health problems as revealed in other sources. The Denver study of health interests of children, for example, emphasizes the interest of adolescent boys and girls in understanding their own growth, getting along with people, personal appearance, fitness, nutrition, vision, and boy-girl relationships.[8]

Purdue University opinion polls of secondary school youth reveal a number of concerns associated with growing up physically, getting along with parents, getting along with other boys and girls, and understanding oneself. Some specific problems most closely related to health education include: how to gain or lose weight, how to get rid of pimples, how to improve posture and body build, what to do about frequent headaches, what to do about dental care, how to get more sleep and avoid fatigue, how to control temper, and how not to be so nervous or excited or sensitive. These studies also show that lack of adequate sex information is almost universal. Teen-agers want information and help in learning how to handle themselves, but they want to think for themselves, to learn how to take responsibility, and to acquire perspective.

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[7] Macy, Icie G. "Nutrition and the Teen-Ager." *Reference Papers on Children and Youth.* Washington, D.C.: White House Conference on Children and Youth, 1960. p. 187.

[8] Denver Public Schools. *Health Interests of Children.* Denver, Colo.: Board of Education, 1947.

The use of a problem check list, behavior inventory, and health examination with over 900 senior high school students showed interest in the following health topics: sleep, rest, and relaxation; prevention and control of chronic and degenerative diseases; safety education; consumer health; mental health; nutrition; personal health; orthopedic, dental, visual, and skin defects; and stimulants and depressants.[9]

Community Problems

Health problems related to society have their impact on youth. Some of these problems are the result of technological developments and their impact on the environment. Public health leaders are giving major attention to air and water pollution, radiological hazards, and the use of poisonous substances in everyday living. Other problems are associated with the need for more qualified health personnel, better use of health facilities and resources available in communities and states, and coordination of the efforts of professional health personnel, legislators, and other citizens to solve the perplexing problem of providing better health care for all people everywhere. There also is the continuing problem of making better use of factual information to dispel superstitions, correct misconceptions, and generally raise the health literacy and standards. Teen-agers must become aware of these problems if they are to be ready to meet the responsibilities of adult life.

Developmental Needs and Tasks of Youth

The specific health problems relating to mortality, morbidity, defects, practices, and the concerns of youth are intimately related to each other and to the physiological and psychological needs of youth. It is the nature of the adolescent—a human being "suspended between the two worlds of childhood and adulthood," growing out of one world into the other—that contributes to the presence of many of the problems discussed here.

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[9] Rich, Ruth. "Health Education Needs of High School Students in a Large Diversified Metropolitan Area." *Research Quarterly* 31:631-37; December 1960.

Havighurst has described ten developmental tasks for the adolescent, some of which are directly related to his health education and all of which have implications for it. These tasks, referred to earlier,[10] may be related to curriculum improvement for health education. Cushman and his associates have given a guide for doing this.[11] Because of the emphasis in health education on *reasoned* behavior and application and use of information in understanding and solving personal and community problems associated with the healthful development of individuals, it is less difficult to place experiences and content for health education into such a framework than less functional areas of the school curriculum. To do this, however, the health educator must be able to formulate a design, understandable to other educators, which brings together in orderly fashion the various strands of subject matter, skills, practices, and values consistent with the philosophy for modern curriculum improvement.

IMPROVING THE CURRICULUM FOR HEALTH EDUCATION

Perhaps the most important single need in improving the curriculum for health education in the secondary schools is for those responsible for health instruction to relate their efforts more closely to the efforts of their associates who are concerned with the improvement of the total curriculum. Health education is a broad-field area, the content coming from different fields. Because of its multidisciplinary nature, planning for more effective programs should involve individuals representing various fields. This is particularly important if the health problems and concerns of youth are to be dealt with in the health education program. Factual information and the skills which need to be taught so that the teen-ager may learn how to understand and deal intelligently with these problems cannot be limited to a single subject field.

Health educators need to become better general educators. The health program in schools has too long been isolated from the main stream of the curriculum. The significant leadership given by general educators 50 years ago to put health and health education into the main stream of the curriculum seems to have been somewhat dissipated with the rise of the specialized health educator. Distortions, misinterpretations, and confusion have resulted from accelerated efforts to develop a special discipline of health education or one combined with physical education. In the attempt to establish "status" for this new area, developments in the broader field of education have often been ignored or overlooked. Competition rather than cooperation has resulted, and those with special knowledge and skill in curriculum improvement and secondary education frequently have become alienated from the health education program.

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[10] See page 17.

[11] Cushman, Wesley P. "Developmental Tasks: A Source of Health Problems." *Journal of School Health* 29:248; September 1959.

With the present-day disposition of professional educators to appraise the total curriculum, the time is ripe for critically examining the curriculum patterns and teaching practices in health education. Surely, better ways can be found for improving these programs than have characterized some efforts in the past. In fact, better ways *are* being found, as evidenced in reports from various parts of the country.

Designing the curriculum to result in better health education for youth is difficult but not impossible. The ASCD Yearbook, *Balance in the Curriculum*, contains many excellent suggestions. Three methods of selecting content are examined: (a) in terms of logically developed bodies of subject matter, (b) in terms of the immediate interests and concerns of students, and (c) in terms of the subject matter, the interests and concerns of students, and the needs of society. Each of these designs is discussed pro and con. The conclusion follows:

> Whatever the answers may be, it is certain that we have gone beyond the idea of concentrating upon knowledge set-out-to-be-learned; that we have gone beyond the idea of depending upon the apparent interests of the learner as the sole criterion for the selection of content; and that we have gone beyond the idea of selecting content only in terms of social issues and social situations. Today, any consideration of content selection must include provisions for dealing with subject matter, the learner and society—all as one and each interacting to effect desired modification of behavior.[12]

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[12] Association for Supervision and Curriculum Development. *Balance in the Curriculum.* 1961 Yearbook. Washington, D.C.: the Association, a department of the National Education Association, 1961. p. 122.

Cannot this suggestion be applied to the program in health education? Certainly in this area, educators recognize the importance of subject matter. They are concerned with its use in helping youth understand the basis for recommended health practices and health-related social behavior. They are interested in utilizing the interests and concerns of youth in selecting content and in organizing teaching procedures. And they recognize that a comprehensive health education program for secondary schools will consider the community and public health problems confronting society and will also teach youth something of their health heritage. The health education program should be viewed as a broad-field area in contrast to the more traditional subject-matter areas. It might be organized separately as a broad field itself, or it might be combined with other closely related broad-field areas or multidisciplinary courses such as family living, human relations, social living, and personal problems.

Health educators become an important leadership group in curriculum improvement as they align themselves with other educators concerned with a balanced, realistic appraisal of the total school curriculum. New patterns of curriculum organization and scheduling are emerging. With the increasing enrollment of students, the continuing shortage of professional teachers, the renewed interest of parents and other citizens representing differing points of view and multiple pressure groups, the rapid expansion of knowledge in all fields, and the national accent on "getting going" accompanied by almost fatalistic predictions that time is running out, there is an immense challenge to all professional educators to coordinate and strengthen their efforts, to utilize better the results of educational research while continuing efforts to develop multidisciplinary studies, and thus to determine cooperatively the direction education should go.

To meet this challenge, it is imperative that all special-interest groups within the profession engage in a searching examination of their goals, activities, ambitions, and their relationships and contributions to each other. Are they meeting the present-day needs of youth? Do they fully recognize the nature of the society in which they are living and particularly those aspects that have significance for health education? Speed, tension, conflict, threats, fall-out, pollution, radiation—all these affect health education. What do secondary school youth need to cope successfully as adults with the many modern problems? Leadership skills, the ability to get along with people, learning how to learn and how to judge the soundness of information and proposals for social action are as important to health education as to any other area of the school curriculum. How can educators contribute to the development of these abilities and, at the same time, teach all the other content? What should be the objectives? How will they proceed to improve the health education program in their respective schools?

Suggested Steps

The suggestions which follow are based on the assumption that considerable thought has been given to the developmental characteristics, problems, and concerns of youth in general, to health problems in particular, and to the philosophical, psychological, and sociological bases for curriculum development. Defining and accepting sound generalizations regarding these matters provide a foundation on which to build. In improving the health education curriculum, the individuals providing leadership will need to:

Obtain pertinent facts about the health status, concerns, problems, and interests of the teen-agers in their school and in their community. Are there any records in the school which provide information about health history, results of medical and dental examinations, causes of absence from school, personal health problems? Are data available regarding causes of mortality and morbidity among the school-age and young-adult population in the community? Have any inventories been made of student interests and concerns relating to health? Is information available regarding the incidence and type of accidents for this age group? What is known about student health practices in matters of eating, cleanliness, sleep, exercise, rest and relaxation, smoking, drinking alcoholic beverages?

Determine what health education has been taught, or is now being taught, and how it is organized. Is there a separate course, or is health education content included in other courses such as homemaking, science, social science, English, family living, social living? What is the content? What are the objectives? What are the major instructional emphases: acquisition of knowledge? modification of practices and/or attitudes? use of the health textbook or lectures or projects? Is there any teacher-pupil planning? Are community personnel used as resource people? What is the student evaluation of the instruction?

Determine instructional policies and the philosophy, guiding principles, and general approach to curriculum improvement that prevail in the school and in the school system. Is there a curriculum coordinator or director in the school or school system? Are there curriculum committees? Is there a health-education or broad-fields or health-and-related-areas committee? Are parents and representatives of community agencies included in curriculum studies? What are the over-all objectives for the secondary school? Are these stated in writing? Are they understood by teachers? parents? students? community agencies and groups?

Define the framework within which curriculum improvement for health education in a particular school or school system may take place. Will it be school-centered? system-wide? a separate study? related to other curriculum improvement projects? What organizational pattern is acceptable: grade level? inter-departmental? single departmental?

Define specific objectives or behavioral goals to give direction to program development. A useful reference for this is the excellent study of behavioral outcomes in general education in the high school conducted under the joint sponsorship of the National Association of Secondary-School Principals, the Educational Testing Service, and the Russell Sage Foundation, with the cooperation of the U. S. Office of Education, the American Association of School Administrators, and the Association for Supervision and Curriculum Development.[13] This report interprets the broad objectives of self-realization, human relationships, economic efficiency, and civic responsibility; defines behavioral outcomes for each of these four areas; and suggests a pattern for curriculum study. The report shows how to relate health education to the total curriculum and provides a basis for selecting content and learning experiences and for evaluating outcomes of the program.

Are there curriculum guides in the school system, state department of public instruction, or other school systems which might be helpful? What other printed sources are available?

Define and select content, learning experiences, and materials. Content should include the problems, concerns, and interests of the adolescent and the factual subject matter required to deal with these problems. It should also include the methods employed by the teacher in planning and conducting the instruction so that results will include leadership skills, improved human relationships, the ability to judge sources of information and to evaluate critically what one reads and hears, and skills in problem-solving, in estimating one's own achievements and those of others, and in learning how to learn. What suggestions do students have?

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[13] French, William Marshall. *Behavioral Goals of General Education in High School.* New York: Russell Sage Foundation, 1957.

Develop an acceptable organizational pattern for health education. Will there be a separate course or will health education be taught in combination with other subjects? incorporated into other courses? as part of a core or broad-field area? Who will have the immediate responsibility? How will health education be related to health services available to youth? to the guidance and occupational information programs?

Consider ways of evaluating the health education program, stressing change in attitudes, behaviors, use and application of knowledge, and development of critical judgment.

Try out the plan on a limited basis first; then evaluate, modify, and expand. Keep in mind the idea of balance and principles of learning. Other steps might be added or substituted. A systematic and objective approach should be encouraged. Becoming familiar with the current situation, present and past practices, problems, the personnel involved, programs, and organization is essential as an early step, if democratic principles of participation are to be observed. The leader who dictates the process for curriculum improvement and who demands quick results is setting the stage for teacher dissatisfaction, frustration, and failure at the outset. Determining the "good" things teachers have done in contributing to the health education of youth, and then building on these "good" things is an effective way to encourage teacher participation and effort for better programs.

The Future: What Is Needed

What is needed to help youth solve their health problems and to develop a better school program of health education is suggested throughout this chapter. These may be summarized as follows:

Relate efforts to improve the health education program more closely to those who have responsibility for the local curriculum.

Consider fresh approaches to organizational patterns for health education. Treat this as a broad-field area. Consider its relationship to other multidisciplinary courses such as family life education, human relations, social living, and personal problems.

Critically examine the goals, activities, ambitions, and relationships of the health education program to the rest of the curriculum.

Follow the recognized steps for curriculum improvement, seeking always to recognize the needs of the particular situation and the group of youth in particular schools and communities.

There are many assets with which to work. The health needs and problems of youth are known; the information needed to dispel misconceptions on health matters is available; tested principles and methods of teaching and curriculum improvement have been defined; and the desire to do a better job appears to be present. Are health educators ready to give leadership on a much broader scale than they have been accustomed to giving? Have those in health education come of age, or are they still exhibiting the impetuosity of the adolescent? What can be done to establish a better relationship with the rest of the curriculum?

The Preamble to the 1960 White House Conference on Children and Youth states: "Never in our history has it been more important that we strengthen our free society and demonstrate its creative potentialities by insuring that each child fulfills the promise that is in him. [We recognize the] devastating rapidity of change that marks this moment in history."

In helping youth to relate health information to the culture in which they live, and health behavior to ethical values, educators must begin with themselves—the leaders of youth. Are they fit to teach, to provide youth with the quality leadership they seek and need? How much do they know about the various aspects of the curriculum and about secondary education in general? Have they taken time to learn about the interests of other teachers and their understanding of the problems and concerns of adolescents? How well do they get along? supplement each other? ignore each other? compete with others? What are their relationships with specialized health or guidance personnel in the school and with the community health agency personnel? Have they contributed a little more than their "share" to the creation and maintenance of a healthful environment for learning? Have they included the students in doing this?

Many of the problems that confront youth and much of the content for health education in the secondary school probably will be described as controversial. But the major problems of life are controversial. The teaching task is to help young people develop skills of objectivity and problem-solving.

The literature in health education and secondary education is rich in suggestions and reports of good practices for curriculum improvement. This too is an asset, but sometimes it appears as a liability. The increased literature on health education may have been a deterrent to creativity in practice, for there is a tendency to seek the answers in the experience and thinking of others.

Helping youth solve their health problems and become better health-educated is not an easy task. The combination of personal characteristics, abilities, and skills needed by those who should give leadership would seem to be those of the paragon. Most educators are far from that ideal, but certainly every one of them can become a *better* teacher and leader of youth.

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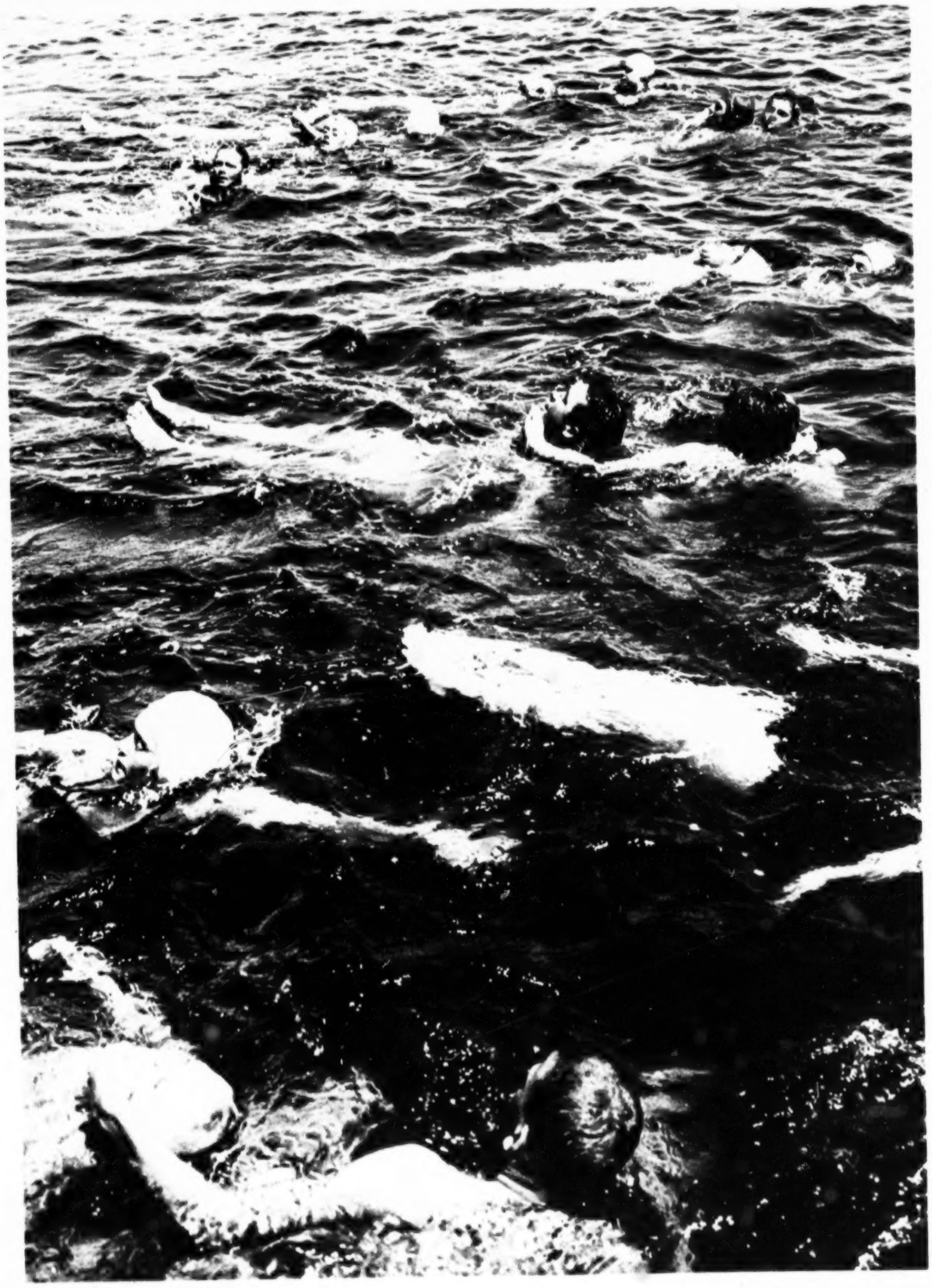

HOWARD G. DANFORD

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Safety Education

When facing an issue in the schools, one can have no stronger ally than a teaching staff that believes in the cause. The quality of any aspect of a school program varies directly with the extent to which those who are involved believe in its values. Almost 2400 years ago, Plato pointed out that "what is honored in a country is cultivated there." The first imperative, then, for a sound program of safety education is a fundamental belief on the part of school people that safety education is of vital significance and deserves an important place in the curriculum.

A PHILOSOPHY OF SAFETY EDUCATION

Deep convictions with respect to the values of safety education must be based upon facts and must harmonize with one's concepts of the general purposes of education in American democracy.

Basic Accident Facts

During the decade of the 1950's, approximately 934,000 persons were killed by accidents in the United States. Almost 100 million others were injured, with an economic loss of 100 billion dollars. Accidents are the leading cause of death among youth of secondary school age. The National Safety Council reports that accidents kill more persons in the 15-24 age group than all other causes combined; and, for all ages, accidents are the fourth leading cause of death in this nation, exceeded only by heart disease, cancer, and vascular lesions.

The facts establish clearly that Americans live in an increasingly hazardous world and that inability to adjust satisfactorily to this world annually exacts a ghastly toll in useless sacrifice of life and property.

Accidents Don't Just Happen

If accidents were caused by chance beyond human power to control, safety education would be a waste of time. Fortunately, this is not true. All accidents have causes, just as all diseases have causes, and no accident occurs by chance. An accident is simply evidence of a lack of control over oneself or one's environment, or both. Every time an accident occurs, someone has made a mistake.

To say that accidents *will* happen and there is nothing to do about them is as unscientific as to say that smallpox will happen and to take no preventive measures. However, far more knowledge about the basic causes of accidents is necessary before the attack upon accidents can become as scientific as the attack upon smallpox. The cloud of uncertainty that hangs over the accident problem, obscuring its basic causes and retarding progress toward its solution, will be dispelled only after an intensive program of research has found the answers to numerous questions. At present, causes of the same accident, as ascribed by different persons, may range all the way from carelessness—which is no cause at all—to a psychological condition involving rebellion or guilt that unconsciously provokes accident and injury as a form of atonement. To say that speeding, for example, is the cause of an automobile accident is equivalent to saying that a high temperature is the cause of diphtheria. The really basic cause or causes of the accident lie deeper than the outward manifestation of human error known as speeding. The faulty behavior has a cause—perhaps a deep-seated, psychological one.

Among the leading causes of accidents, as understood today, are mental and emotional factors such as poor judgment, lack of knowledge, and faulty emotional patterns and attitudes; an impaired organic condition such as fatigue, drowsiness, drunkenness, or defective vision and hearing; unsafe conditions of buildings and grounds; unsafe or inadequate supplies and equipment; inadequate leadership or teaching resulting in a failure to help students acquire the skill essential to safe participation; poor officiating or lack of proper supervision over hazardous activities; forces of nature such as wind, lightning, earthquake, and flood.

The human factor towers above all others as a basic cause of accidents. Changes in human behavior must be effected before much progress can be made in stemming the tide of accidents in this nation.

Threat to Democracy and Challenge to Education

What is the responsibility of the school with respect to the accident problem? In the light of all the other obligations of the school, educators must consider whether it is wise to allot a significant share of school time and money to a safety education program if it encroaches on pupil progress in the areas of the school's traditional, basic responsibilities. The answer to this vitally important question should be framed with reference to these conclusions:

1. Effecting desirable changes in human behavior is a function of education.
2. In determining what shall and what shall not be taught, nothing is more basic than survival or self-preservation. In his famous essay, "What Knowledge Is of Most Worth?" Herbert Spencer declared that the knowledge of most worth is that which enables an individual to preserve himself.
3. The basic tenet of democracy is respect for human personality, belief in the supreme importance of the individual and in the sacredness of human life. Democracy will survive only as long as its citizens possess those

> unique qualities necessary to make it work. Among those qualities are a high regard for the welfare of others, a willingness to cooperate for the common good, obedience to the letter and the spirit of the law, a high regard for excellence, and behavior based on moral and ethical principles. The slaughter of almost a million Americans and injury of 100 million others within a ten-year period, largely because of a negation of the very essence of democracy, is not only a crime against humanity but also a grave threat to democracy itself.

This approaches the very heart of the value system for safety education. Safety is essentially a by-product of the highest type of democratic citizenship. It can best be achieved not by pursuing it as a goal or an end in itself but by doing everything possible to develop to the highest degree the qualities of the good citizen in a democracy. A finer democracy, therefore, becomes the goal, with safety resulting as a natural outcome of better democratic citizenship. The automobile driver who demonstrates to a marked degree the qualities of the good citizen, not just to be safe but because he prides himself upon being a good citizen, is more apt to be a safe driver than one who is thinking constantly about safety.

When youth have a deep and abiding faith in the dignity and value of human life, when they are truly concerned over the rights and welfare of the other fellow, and when they practice human decency wherever they may be, this country is well along the road that leads to a great democracy. It also is well along the road that leads to the elimination of those accidents caused by selfish individuals whose utter disregard for the welfare of others stamps them as unfit for citizenship in a democracy. Certainly the school can find few better ways to teach respect for the dignity and value of human life than through a program of safety education which emphasizes that "I am my brother's keeper."

The extent to which an ever-increasing proportion of Americans violate the laws of the nation represents a constant threat to democracy. How can any nation be strong and its way of life superior if people in large numbers violate the laws of their own making? One has only to observe driving practices on the streets and highways of America to realize how far the country has fallen short of this goal of democracy—the law-abiding citizen. And yet, people cannot be expected to be law-abiding with respect to traffic laws unless they are law-abiding with respect to other laws. Hence, the problem of obedience to law must be attacked on a broad front, not just by those interested in safety education.

Obedience to the law by virtue of self-discipline rather than through coercion leads to a finer democracy—and safety.

Safety education, according to this concept, is characterized by the following:

1. It seeks safety not as an end in itself but as a means to all the good ends of life and as a by-product of improved democratic citizenship.
2. It rejects "safety first" as a slogan because it recognizes that such values as love, truth, loyalty, honor, faith, and liberty should take precedence over safety. "Safety first" may be fine as a slogan for a railroad or an airline. As a slogan for safety education in the schools, however, it is completely inadequate, since safety should be first only when there are no other values of sufficient importance to displace it.
3. It recognizes that the nature of youth welcomes some danger and that a life devoid of all hazard not only is impossible but would be extremely monotonous. Life at its best is taking risks for things worthwhile.
4. It seeks to help youth acquire the necessary skills, knowledge, and attitudes to overcome the hazards rather than become the victims of them. It is in complete harmony with Socrates' statement: "Whom, then, do I call educated? First, those who control circumstances, instead of being mastered by them. . . ."
5. It seeks to teach youth to discriminate between those values worth risking one's life for and those which are not. There is a vast difference between risking one's life for a cheap thrill in reckless driving and risking it in an attempt to rescue a drowning friend.

SCOPE OF THE PROGRAM

A school program in safety education relates to all factors or conditions inherent in the school plant and in its operation, to all matters of organization and administration, and to all activities and duties of executives, supervisors, teachers, pupils, custodians, and others connected with the school or community who have any bearing—however slight the degree—upon the safety of pupils and teachers.

Two major facets of the program emerge upon careful analysis: (1) the protective or service phase in which emphasis is centered upon those things which are done *for* youth by others and designed primarily to provide a safe environment; and (2) the instructional phase in which the education of youth is directed at the goal of developing responsible and self-disciplined citizens in a democracy equipped with the competencies essential to self-protection and the social conscience basic to the protection of others.

Safety education is not simply a subject to be learned, facts to be memorized, information to be acquired. Safety education is concerned with a way of living. It is a matter of information, of attitude, of skill and habit, of social consciousness, of judgment and understanding, and of ability to weigh values. It is each of these, and more: "The whole is greater than the sum of its parts."

PROTECTIVE SERVICES

Many of the services in this category fall within the province of the school administrator's responsibilities, but frequently they are delegated to supervisors and teachers.

Provision of Safe Buildings, Grounds, and Equipment

Providing a safe place for youth who are required by law to attend school is both a legal and a moral responsibility of the school. The alert educator knows that a good program of school safety education begins with the selection of a safe school site, continues with the architect, and is dependent for success upon custodians, engineers, superintendents of buildings and grounds, teachers, principals, pupils, and all others upon whom devolves the responsibility for maintaining the school plant in a safe condition.

The building should be near the school population center it is designed to serve, with the most dangerous thoroughfares on the boundaries of the school district. Adequate off-street parking and loading zones are provided. The building is constructed in conformity with the numerous safety standards related to fire hazard and to such forces of nature as wind and earth tremors, as they apply to the locality. Grounds are as level as possible with a minimum of retaining walls, terraces, and steps. They are fenced, appropriately surfaced, adequately equipped, properly laid out, and maintained in a safe, clean, and attractive manner. The school site and adjacent streets are clearly marked with uniform safety markings. The building and classrooms are marked with proper signs to expedite orderly and safe exit in case of fire. Periodic safety surveys and inspections are made by designated individuals or committees.

Accident-Reporting System and Use of Results

An adequate accident-reporting system is a significant yardstick of the development of a school program of safety education.

A school which keeps no accident records of where, how, when, why, or to whom its accidents occur is like a blindfolded boxer who swings wildly but seldom hits anything. The Standard Student Accident Reporting System, devised by the National Safety Council, is highly recommended to all schools. However, the accumulation of accident data has merit only if properly used. Among the major values of accident recording are:

1. It provides a basis for determining what teachers should teach youth. In a Midwestern city, accident reports in early spring revealed a number of sprained and broken fingers among high school girls in softball. Physical education teachers, realizing that the girls must be pointing their fingers directly toward the ball, were alerted to teach them the proper way to hold their hands.
2. It provides a basis for making changes in buildings, grounds, equipment, and supplies. Data collected in one state revealed a large proportion of baseball injuries at second base, occurring when the baseman was spiked by the runner. A new state regulation abolished metal spikes and substituted rubber spikes.
3. It provides essential information in case of liability suits.
4. It is a measure for determining the effectiveness of both the protective and instructional aspects of the safety education program.

Every school should record all injuries occurring while students are on school property, going to and from school, or participating in school-sponsored activities. Every school should also record all injuries requiring a doctor's care or keeping a student out of school one-half day or more, regardless of where the student was injured.

The reports should be tabulated and summarized monthly to reveal trends, seasonal hazards, and other significant facts. A bulletin should be distributed to all school personnel each month covering these essentials: accident data for the preceding month, properly interpreted; suggestions arising out of these facts for improving the program; and predictions for the coming month based on the accident experience for that month in previous years, with suggestions for the prevention of these accidents.

Intelligent accident analysis followed by appropriate recommendations for remedial or preventive action is a vitally important phase of a school program of safety education. Youth should be encouraged to carry out important projects in an active campaign against accidents. A good example of such a project is the preparation of a map spotting accident locations in the school building. After determining those areas of greatest hazard, students—serving with some adults on an accident-investigation committee—look upon each accident as a challenge in somewhat the same way that a detective is challenged by an unsolved crime. For example, the spot map may reveal a number of accidents occurring within a year or two on a certain stairway. Investigation may reveal inadequate lighting, a slippery or broken step, the tendency of students to run down the stairs, or other hazardous factors. The committee studies the problem and makes recommendations designed to solve it.

The construction of safe school buildings, provision of play areas free from serious hazards, establishment of rules for the control of student behavior, dissemination of information on how to be safe, imposition of penalties for unsafe conduct, even the development of skills for safety—all of these factors, and all others which have value for the complete program of safety education, will result neither in safety nor in education without student interest and cooperation. This is the greatest single problem facing school administrators in the establishment of a program of safety education.

Development of Student Safety Organizations

Student participation in planning and executing a safety program increases interest. Among the most powerful drives which motivate the behavior of youth are the desires to win social approval, to achieve a measure of self-direction, and to attain personal achievement. These desires suggest student safety organizations as a potential medium for encouraging student interest and cooperation.

The student organizations which have proved most effective in safety education include the following:

Student Council

When student councils assume a major responsibility for safety, the bulk of this responsibility is discharged through a safety committee. Safety activities involve discovering hazards, determining safety needs, making spot maps, carrying out inspections, collecting information and interpreting it to students, recommending safety regulations, and establishing safety patrols or guards. In schools where student councils do not exist, operation of student safety councils has proved effective.

Safety Patrols or Guards

These may take the form of street, corridor, bus, and playground patrols. Since the term *patrol* frequently carries an elementary school connotation, many secondary schools have substituted the word *guards*. Their function is to prevent accidents by exercising a supervisory function over other students in hazardous situations.

Safety Clubs and Committees

Bicycle and motor clubs having safety as a major objective have proved effective in many schools. Others have organized sportsmen's safety clubs, school shop safety committees, and civil defense committees—all of which give students practice in cooperative planning and intelligent self-direction.

Regulations To Safeguard Students and Teachers

Some protective measures are of such fundamental importance that they may be termed basic safeguards, and their establishment should be among the first steps taken in the development of a program of safety education. Among these important protective measures are the following:

Passage by the board of education of rules governing especially hazardous situations, conditions, or actions. Areas of safety most frequently covered include fire hazards and drills, bus transportation, removal of ice and snow, inspection of buildings, grounds, and equipment, and procedures which should be followed in case of pupil injury. There are certain situations arising in school which are fraught with so much potential danger for the child and the teacher that, in the interests of both, the board of education should prescribe clearly and fully the exact procedure to be followed. The state of affairs attendant upon the serious injury of a student is one of these situations. Hence, the board should adopt a policy outlining a step-by-step procedure for dealing with a seriously injured student. Teachers should be required to follow this policy closely, deviating from it only when absolutely necessary.

Provision in each school of adequate first aid supplies and of persons trained in first aid.

Establishment of measures designed to protect students in extremely hazardous places such as street crossings, shops, and laboratories.

Selection of teachers prepared to teach safety education. This implies also that qualified teachers, at all times, will supervise students in all hazardous activities.

Provision of safe bus transportation. Involved in this problem are the selection of competent drivers, selection and maintenance of bus equipment, determination of safe transit practices, and provision of adequate insurance.

Provision of special safeguards for handicapped students. The nature of these protective measures will vary with the type of handicap and the layout of the school building.

Allocation of major responsibility for safety education. **Someone should be assigned major responsibility for direction of the safety program in each school within the system. "What is everybody's business is nobody's business." While everyone in a school will have a contribution to make to the total program, definite leadership ensures best results.**

PROGRAM OF INSTRUCTION

A program concerned solely with the prevention of accidents is a safety program, but it is not education. It is only a technique, a device, or a procedure for saving lives. It is not concerned with improving the quality of life.

All school activities and services should yield as large an educational return as possible. This means that safety education is not merely concerned with accumulating facts. It is a process of modifying human behavior in the direction of a deeper sensitivity for the welfare of others, stronger self-discipline, a keener sense of individual responsibility, a heightened social consciousness and conscience, a greater respect for both the letter and spirit of the law, growth toward mature self-direction in all areas of daily living, and improved skill in activities and situations involving hazards. If these goals are to be attained, schools must provide a scientifically sound program of safety instruction for all students, sufficiently comprehensive to meet their needs and interests, and give it an important place in the total curriculum.

Organizing Safety Education for Instruction

New subjects usually have difficulty finding a place in the curriculum. The curriculum is crowded, and vested interests may be expected to resent the intrusion of the "newcomer" regardless of its merits. Partially for this reason, safety education seldom is taught as a separate subject. Furthermore, much of safety does not lend itself to the separate-subject approach. Safety in softball, for example, should be taught as an aspect of physical education, not in isolation from it. There seems to be no good reason why safety in handling tools should be taught in a separate course instead of in connection with the program in industrial arts. Safety cannot be taught in the abstract, dissociated from the vital activities of life. It is concerned with the good life and should be taught as a part of the total instruction in the fine art of living.

Three major patterns of instruction for safety education have emerged within the past few years:

Correlating and integrating safety with existing subjects and activities. The strength of this plan, which is the most frequently used, lies primarily in its naturalness and in the ease with which it gains entrance into the curriculum; its weakness, in the temptation to relegate safety to a position of relative unimportance or to ignore it completely. Where this plan of organization is used, a careful investigation of the curriculum should be made to determine which subjects provide opportunities for a natural correlation with safety. Forced or strained correlations may be damaging both to the parent subject and to safety education. Richest opportunities for the approach through correlation appear to exist in physical education, science, social studies, health education, industrial arts, and homemaking.

Organizing safety education as a specific unit in an existing subject, such as health education or social studies. Where a separate course in health education exists, strong arguments arise to include safety education as an important phase of health education. So completely do these two areas of education harmonize in purpose and method that a merger seems wholly desirable, except in such instances as driver education, safety in sports and games and in industrial arts which can best be taught as an essential part of skillful performance in the parent subject.

Organizing safety education as a separate subject. As previously indicated, the organization of safety education as a separate subject has not been widespread, probably because most curriculums are already overcrowded and because much of safety does not lend itself to an isolated, separate subject-approach.

What Shall Be Taught?

The needs of the time and the place shape and fashion education. The safety needs of youth are best determined by:

1. An analysis of the activities in which students participate to determine the hazards involved
2. An analysis of hazards in the environment
3. A study of accident data collected through the accident-reporting system.

Safety in Physical Education

A number of studies have shown that more than 40 percent of all accidents involving youth within the school plant occur in physical education. It is imperative, therefore, that teachers of physical education understand and discharge effectively their responsibilities for teaching safety as an important aspect of physical education. In addition to providing a safe place and adequate protective supplies and equipment, teachers should emphasize correct techniques, proper conditioning, good officiating, use of student leaders as guards or spotters, equality of competition, good sportsmanship, obedience both to the letter and spirit of the rules, and personal supervision by the teacher of all hazardous activities.

Safety in camping, boating, swimming, bicycling, hunting, ice skating, skiing, and other popular recreation activities should be taught by the physical education teacher.

Safety from Fire Hazards

In a recent year, fire caused the death of over 7000 persons and cost more than one billion dollars. Education in fire prevention and fire control is a most important means of attacking the hazard. Buildings may be safely constructed, effective measures for fire control developed, and rules and regulations enforced, but the problem is far from solved until the individual acquires desirable attitudes, skills, and information in the field of fire safety. The program of instruction for secondary school youth should place major emphasis upon an understanding of the causes and methods of preventing fires; the chemistry of fire; scope and nature of the problem—its economic and human costs; avoidance of fire hazards in the home; fire fighting techniques; safe building construction, maintenance, and inspection; forest conservation; and community responsibility in fire prevention.

Home Safety

Approximately 26,000 persons were killed in home accidents within a recent year, and 3,900,000 were injured at a cost of $900,000,000, excluding property damage. Types of home fatalities, in order of importance, were falls, burns, mechanical suffocations, firearms, poisons (solid or liquid), and poison gases.

Teaching emphasis should be on interesting, purposeful activities challenging youth to an intelligent and aggressive attack upon the problem of home accidents. These activities might include: developing a home safety check list and applying it in the home; making specific recommendations designed to improve the situation revealed by the check list; drawing a plan of a home and, on the basis of a home accident survey conducted among classmates, making an accident spot map; making a list of chemicals used in the home and reporting on their safe use; studying the efforts of industry in the area of safety and reporting on the possibility of their application to the home.

Vocational Safety

Accidental work deaths over a recent 12-month period totaled almost 14,000, and disabling injuries amounted to nearly two million. The need for a program of safety among industrial arts and vocational students goes beyond safety in the school shop. As potential industrial employees, these students should be prepared to take their places as safe and efficient workers in industry. Much can be learned by the schools from the long and successful experience of industry in accident prevention. Major emphasis in industry has been placed upon collection and study of accident data as a basis for remedial action, machine guarding, provision of protective personal devices, adequate shop layout, enforcement of safety regulations, and education of workers.

Industry discovered early in its fight against accidents that safety appliances and protective devices alone could not solve the problem. The outstanding problem was people and how to select, train, and supervise them so that they would work without injuring themselves and others. This is the safety problem which the schools face in their programs of vocational education.

First Aid

In the area of first aid, the school has two outstanding responsibilities: first, to provide first aid service for all youth injured while under the jurisdiction of the school; second, to educate all youth in the basic principles and practices of first aid.

Ideally, all teachers should be trained in first aid. A minimum standard would require that all teachers in such areas as health education, physical education, industrial education, and home economics, as well as the school nurse and principal, be trained in first aid. Furthermore, at least one of these persons should be in the building whenever students are present. If the school is to discharge its moral and legal responsibility for rendering first aid, it must provide adequate first aid supplies, carefully selected and properly used. A midwestern city requested the president of the county medical society to appoint three physicians to a school medical advisory committee. The advice of this group was invaluable in many respects, but especially in the selection of first aid supplies and in the development of policies and practices in the administration of first aid.

Where health education is offered in both the junior and senior high schools, a unit in first aid should be included at both levels, if at all possible. If time restrictions prohibit offering the unit at both levels, it should be incorporated in the junior high school program.

Emphasis in first aid instruction is placed upon what to do and what not to do for the more common and less serious injuries. Included in the program should be first aid for cuts, punctures, bruises, lacerations, sprains and strains, burns, scalds, severe sunburn, bleeding, shock, fainting, drowning, poisoning, fractures, dislocations, bites of animals, frostbite, and foreign bodies in the eyes and ears. How to move sick or injured persons, to bandage properly, and to use first aid supplies should also be taught.

Driver Education

In 1895 there were four gasoline automobiles in the United States. People were shocked that these cars could be driven at the dangerous speed of 11 miles an hour. Today there are more than 60 million automobiles in the nation. This tremendous growth and development in the automobile industry has affected almost every aspect of living, particularly manners and customs, family life, and employment.

In the last decade, approximately 375,000 persons were killed in traffic accidents and 13,500,000 injured at a cost of 45 billion dollars. In more than 90 percent of these accidents, human failure was a partial or primary factor. Not even the wealthiest nation in the world can afford such an appalling drain upon its manpower or its material wealth, particularly when it faces increasing responsibilities as the leader of the free nations in their world-wide fight against communism.

The incidence of accidents among teen-agers is very high. And schools, through programs of driver education, have proved that youth who have had driver education have a considerably lower automobile accident rate than those who have not received such instruction. For these two reasons, the growth of driver education in the secondary schools of this nation has been phenomenal. Within less than three decades, driver education has expanded from its small beginnings to a vast program embracing more than 50 percent of all public high schools and more than 1,100,000 students.

The complete driver education program is composed of two essential features: classroom instruction and practice-driving instruction. The former, unsupported by the latter, would be vitiated by lack of interest, insufficient motivation, and incomplete content. It would be comparable to teaching swimming in a classroom with no provisions for experiences in the water.

It is recommended that the classroom phase of driver education be presented as a separate course with a minimum of 30 clock hours per student. At least six clock hours should be devoted to practice-driving instruction for each student, exclusive of time in the car as an observer. However, hours behind the wheel may be reduced if practice-driving simulators are used. Twelve hours of practice with a simulator may be regarded as a substitute for three hours behind the wheel. The entire program generally extends over a one-semester period and is offered at the grade level where most of the students are immediately approaching the minimum legal driving age. In most schools this is the tenth grade.

Important elements in an effective program of driver education include: teachers prepared in driver education as well as in other aspects of education; breadth of course content designed to go far beyond the development of manipulative skills to include a general understanding of the traffic accident problem and an emphasis upon development of qualities essential to its solution; adequate equipment, supplies, and facilities, including dual-control cars, off-street driving areas, psychophysical devices, practice-driving simulators, classroom equipment such as magnetic, flannel, and parking boards, and ample free or low-cost supplementary teaching materials; credit toward graduation on the same basis as other subjects; and a program of evaluation to determine the extent to which the values sought are being realized.

Harassed school administrators, confronted by numerous pressures to expand the already strained curriculum and seeking to offer youth an opportunity to benefit from driver education, might explore profitably the practicality and desirability of utilizing after-school periods, Saturdays, and the summer months for the practice-driving phase of the total program.

A SCHOOL PROBLEM

This nation looks with horror upon the casualty lists of war and with relative unconcern upon the accident record of killed and injured—a record so ghastly that it constitutes a national disgrace. It is an amazing paradox that a nation which sacrifices the lives of thousands of its young men and billions of dollars to guarantee a greater degree of international safety should view with apparent apathy the tragic and needless loss of life which occurs as a routine process of daily existence in this country. The public schools, of all institutions in America, should be most aware of the accident situation and most intelligent in their attack upon it—because it is basically a problem of education.

FRED V. HEIN

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Planning for Healthful Living in the Years Ahead

What factors will determine the health behavior of today's youth in the years to come? How will health problems of the future differ from those of the present? What can the school do to help assure healthful living in the post-school years? Answers to these questions cannot be absolute; too many variables are involved. Yet some guides can be suggested to help parents, teachers, and leaders equip youth to face the future.

Attitudes are as important as knowledge in influencing behavior. Young people will act and react, now and in the days ahead, in terms of not only what they know about health but also how they feel about a problem or a situation that relates to their health. Feelings, or attitudes, act like catalysts in behavioral reactions; when combined with knowledge, they bring about the appropriate, desirable reaction.

KNOWLEDGE, ATTITUDES, AND BEHAVIOR

Imparting knowledge is the traditional task of the school and one that provides friendly security for the teacher. Influencing attitudes has received less emphasis, although education generally has been interested in the practical application of its teachings. Now there is growing concern with the long-term, post-school carry-over of instruction. In the field of health, this is all-important; good health is founded on consistent adherence to principles of healthful living.

Attitudes stem only partly from knowledge about a problem or a subject; they are as much a product of one's basic drives and values. This accounts for the surprising tenacity with which people cling to old beliefs and attitudes even when supplied with new and reliable information. Thus a person may hold to the belief that he is personally invulnerable to tuberculosis, refusing a chest X ray even though he knows the insidious nature of the disease. Another individual may consider himself such a hardy athlete that he will not acknowledge signs of illness or injury that he knows are present.

Behavioral Goals

Health education's concern with attitude development relates to two behavioral goals, preventive action and curative action. In the former, health education is directed toward preventive procedures such as regular medical and dental checkups, immunizations, a balanced diet, and sufficient sleep and rest. In the latter, the objective is to induce the learner to seek proper care as promptly as possible.

Stimulating preventive action is obviously the more difficult since there is usually no immediate threat to bodily integrity, and the relationship of the recommended practice to actual health improvement is often obscure. However, reliance on self-medication, lack of faith in treatment, and fear of the facts can make proper curative action almost as difficult to produce. In either case, desirable behavior will not take place unless the learner's personal goals and values are intimately related to the process.

Values Are Important

As an individual grows and develops, he acquires a set of values from the family and social groups to which he belongs. Some are derived from adults he admires and with whom he identifies, but others—and usually most—evolve from the peer culture of which he is a part. These sometimes-transient values are often more powerful in influencing youthful behavior than the more logical parent-teacher goals. Consequently, the would-be athlete who "knows" that milk "will cut his wind" may resist the best instruction as to its nutritive values, and the girl who has been "sold" on "hormone cream" for her complexion may scoff at scientific evidence of its limitations.

Another matter needing consideration is the vast differences that exist in the values of persons from diverse class positions. The biggest problem in this respect is found when the teacher and his pupils are far apart in the social class structure. The instructor's values relating to cleanliness, diet, care of the teeth, and a variety of living practices may contrast markedly with those of his pupils. A dramatic example is offered by the instructor who feels that abstinence is the best answer to alcoholism but finds himself teaching in a locality where tradition and custom make the use of wine commonplace, even among youth. Obviously, values may stem from custom, tradition, and social sanctions in the home and community as well as from peer pressures and the more fluid mores of the schools.

Health education is most successful in encouraging preventive and curative action when its aims are consistent with the values of the young people concerned. When the objective of the instruction and the values of youth are at cross purposes, satisfactory results are difficult to achieve. There is little likelihood, for example, of persuading new pupils in a high school not to smoke if social acceptance seems to demand that they smoke. Similarly, it is difficult to induce young people to remain home when ill if they are harshly penalized when absent from school.

The health educator often needs to look beyond the immediate behavior to underlying motives with the realization that behavior changes are frequently dependent upon prior changes in the social climate. Bringing about such changes is broader, of course, than health education alone and involves other faculty members, parents, student leaders, and key people from the community. Modifying the values of young people is never an easy task, but it is one in which health education must share, both as a means of accomplishing its own objectives and as a part of its over-all educational responsibility.

Motivation and Learning

In the area of health, motives may be thought of as the individual's desires to have or to attain certain goals. These may be short-term goals—by far the most common among secondary youth—such as the desire to make the team, to have a better complexion, or to develop a more attractive figure. Only a relatively small proportion of young people in high school have established long-term motivations—the desire to be an engineer, a scientist, or a teacher, to raise a family, or to be of service to society. Health education, along with other teaching fields, should help youth set life goals, but for most boys and girls more immediate goals will predominantly influence their current health behavior.

Many of the immediate goals of young people are obviously related to health and can, therefore, be used to motivate desirable living practices. Boys who otherwise would not keep regular hours can be induced to do so if they believe it will help them improve in sports. Many girls (*and* boys) brush their teeth carefully and visit their dentists on schedule, not to preserve their teeth but to keep them more attractive. For comparable reasons, young people will eat balanced diets, get the exercise they need, and follow other desirable living regimes. Certainly, emphasis on honest relationships between health and the motives of youth is a legitimate, essential aspect of health instruction.

In most life situations, the individual is faced with conflicting motives. Should he get the needed amount of sleep and be at his best tomorrow or watch the late show on TV? Should he enjoy the chocolate malt and suffer the consequences to his complexion or forego the flavor and prevent the blotches that may occur? Many such decisions are made each day, frequently without full knowledge or consideration of the facts. Health education can help young people make more intelligent decisions by providing authentic information and pointing up alternative outcomes. As boys and girls mature during the secondary school years, they can learn to rely, in health matters, more on fact and less on fancy.

In the last few decades, the behavioral sciences, largely through social research, have provided a series of principles relating to human behavior which have effective application for health education. Interestingly, these concepts, when closely analyzed, bear a marked resemblance to the conditions of learning suggested earlier by educational psychology. They can be set forth in many ways but were recently listed concisely and clearly by Tyler.[1]

1. The learner learns what he himself is thinking, feeling, or doing. Hence, learning is not possible except as the learner himself is involved. Active involvement requires an experiential curriculum.
2. The learner finds his previous ways of reacting unsatisfactory. He needs help to recognize the inadequacy of his previous behavior and to be stimulated to try new ways of reacting.
3. The learner has guidance in the new behavior while he tries to overcome the inadequacy of previous reactions. Some means of indicating to him more promising reactions (questions, demonstrations, or suggestions) helps to guide him.
4. The learner has appropriate materials with which to work. To learn to solve problems, he must have problems to solve; to gain skills, he must have tasks that give opportunity to practice these skills; to gain appreciation, he must have materials that he can see, to which he can listen or otherwise respond.
5. The learner has time to carry on the behavior, to keep practicing it. This includes activities requiring feeling and doing as well as thinking. An effective provision for study and active practice time is important for high-level learning.
6. The learner derives satisfaction from the desired behavior. Those reactions which give the learner satisfaction are continued; those which do not give satisfaction are dropped. Teachers can assist the learner in deriving satisfaction from the desired behavior by helping him to gain group approval and by providing tests or other means for him to perceive that he is progressing toward his goal.
7. The learner has opportunity for sequential practice, with each subsequent practice broader or at greater depth than the previous one. Sheer repetition quickly becomes boring. Only as new elements stimulating increased attention are introduced with each new practice is there a basis for effective learning.
8. The learner sets high standards of performance for himself. One of the common difficulties in high school and college is that the student becomes satisfied with mediocre performance. It is important to help the

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[1] Tyler, Ralph W. "Health Education Implications from the Behavioral Sciences." *Journal of Health—Physical Education—Recreation* 31:18, 44; May-June 1960.

student acquire standards that are high but attainable and that lead him on continually to seek greater excellence.

9. The learner has time and means for judging his own performance, to tell how well he is doing. Without such standards he cannot continue to learn beyond the time when a teacher is available.

Learning in the field of health education, as in other fields, is not dependent upon a particular arrangement of teachers and students. The student learns as the several conditions of learning are met for him. Some conditions may be met within the school, but even more opportunities to practice the behavior sought in health education will ordinarily be found outside the school. Health educators will find it necessary to use ingenuity, as they work with their students, if they are to provide all the essential conditions for learning.

CONSUMER EDUCATION

In recent years, industry has become as conscious as health education of behavioral research—perhaps even more so. Increasingly, industry has applied the growing fund of knowledge concerning human behavior to the sale of its products and services. This inevitably raises questions relating to the healthfulness of the items involved and their proper use and possible abuse.

How can a young person learn to evaluate the seemingly innumerable health and health-related products and services offered via radio, television, newspapers, magazines, and other advertising media? What guidelines can tomorrow's families use to judge the claims made for the probably more numerous and fantastic products of the future? Already they are so cleverly promoted and advertised as to puzzle the most cautious consumer.

Fortunately a growing number of producers and distributors are realizing the value of honesty in health advertising. They recognize their obligation to the public and discharge it with integrity. Others, disturbingly, resort to misstatement, distortion of fact, misleading word associations, and even to outright fraud. Often, before the law can stop them, they have done incalculable harm and milked the public of thousands of dollars.

Self-Diagnosis and Self-Medication

Recently it has been estimated that the public spends about $566 million a year on vitamins, laxatives, and headache remedies that are largely self-prescribed.[2] This amounts to an average monthly expenditure of about $18 for each American family. Vitamin supplements account for the greatest proportion—about $350 million, most of which could be better spent for food. Some $148 million is spent on laxatives which are usually unnecessary and sometimes dangerous,[3] and $68 million is spent for aspirin, much of it needlessly. Usually these products are comparatively harmless, but they represent an unnecessary expense to which must be added the millions thrown away each year on "cures" for everything from colds to gout.

Two categories of products and services are of special concern to health education: those relating directly to health such as nonprescription drugs and those influencing health indirectly such as weight-reduction plans or devices. In either case, it is important for the potential customer to appreciate the need for evaluating health advertising and to have at his command effective tools for appraisal.

Resources for Appraisal

There should be no trouble in teaching young people how to evaluate the first category of products—those directly related to health. Except for a few home remedies and standard first aid items, drugs should not be used without medical advice. Even the so-called household drugs are hazardous if used for persistent pain, when signs of infection are present, when sores fail to heal, in excessive dosage, or in any chronic complaint. The greatest threat of self-medication, however, is that it so often delays proper treatment until good results are difficult, if not impossible, to obtain.

What to do about other products and services—the kind that influence health indirectly—is not so easily stated. For example, how could one check on a vibrator sold for weight-reduction purposes, a "vitamin supplement," or a new product that supposedly will remove hair safely? In the area of services, how is it possible to determine the merits of a newly introduced health insurance policy, the qualifications of a recently established medical practitioner, or the worthiness of an unfamiliar health agency?

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[2] American Medical Association. "New AMA Campaign." *AMA News* 3:1; October 3, 1960.

[3] Hook, Charles W. "Laxatives: $148 Million Fraud." *Today's Health* 38:30; October 1960.

Young people should learn that their primary resources for evaluating health products and services are usually found in their own communities—their own physician, health department, medical society, better business bureau, and local hospital. Also, they should know that most of such resources have state and national affiliates to which they will refer when the information is not locally available. The appropriate agency is usually not only willing but anxious, for the good of all concerned, to investigate a questionable matter.

Evaluative Criteria

To call upon available resources whenever the slightest doubt exists about a product or service would hardly be practicable. So it is important for high school youth to become familiar with ways of screening out obvious nostrums and quack devices promoted by modern "medicine men." Young people need only learn a few easily-remembered yardsticks:[4]

1. Are the facts stated in clear, simple language without resort to confusing technical terms? (Long "scientific" terms may be used to impress prospective buyers.)
2. Are the claims acceptable in terms of common sense and logical reasoning? (The careful consumer will not be convinced by holes burned in handkerchiefs or by the amount of fizz produced by a tablet.)
3. Does the advertisement play upon common fears, dread of disease, or superstitious beliefs? ("Do *you* have tired blood?" and "It *could* be your kidneys!" would be examples of such scare techniques.)
4. If research is cited to prove a point, was the research conducted by an unbiased scientific organization? (A manufacturer's research department, for example, could be biased.)
5. If research is cited to prove a point, were the findings published in recognized medical or dental journals (state, regional, and national periodicals of the health professions and publications approved by them)?
6. If opinions of scientific authorities are cited to support a statement, are these persons identified by name, position, place of residence, and professional standing? ("Scientific authorities agree that . . ." sounds impressive but means nothing.)

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[4] Hein, Fred V. "Evaluating Health Advertising." *NEA Journal* 49:57; January 1960.

7. Are the scientific authorities cited in support of a particular point properly qualified in terms of that specific issue? (Competency in one field does not necessarily carry over into another.)
8. Are the statements approved or accepted by professional medical, dental, and public health associations? (If one isn't sure of the answers to the above questions, check with the local medical society or health department.)

Knowing how to obtain the facts about health products and services is an important consumer skill today. In the years ahead, with a growing number of even more diverse products and services, this ability is likely to become increasingly valuable. It is of utmost importance for the individual to learn to be an intelligent consumer in those areas that may affect his life and health.

LIFE AND HEALTH

Man's life span—average life expectancy at birth—has reached an all-time high. A baby born in the United States today can expect to survive, on the average, some 70 years—the proverbial threescore and ten. During all of these years, he may also expect a richer, fuller life with a healthier outlook, less disease, a more healthful environment, and a higher standard of living than at any previous time in history.

Public health and other service agencies assure him of a safe water supply, arrange for sanitary waste disposal, check the healthfulness of the food he eats, set adequate housing standards, regulate the safety of public buildings he frequents, and in other ways safeguard his health and safety. Available to him are the best prepared and equipped physicians and dentists in the world. They can immunize him against many serious diseases, determine the quality of his health by examination and testing, prescribe for his illnesses, repair the results of his injuries, remove malfunctioning organs and malignancies, and counsel him on a variety of health problems.

With modern roads and vehicles, he has easy access to hospitals and medical centers supplied with the finest diagnostic and treatment facilities ever available for life-saving purposes. There are specialized areas and services for varying conditions and all ages, beginning in infancy and extending into senility. There is a variety of skilled technicians whose work supplements and reinforces the efforts of physicians and nurses. When medicines are needed, today's physician has at his command prescriptions so effective that they have been labeled "wonder drugs."

Also at man's service is a vast array of research programs and projects, operated by literally an army of scientific workers in the field of health. In recent years, there has been a tremendous expansion of the manpower, funds, and facilities devoted to research in medicine and public health. Already this research has brought great dividends in the betterment of human health, and it promises even more. Research, without doubt, holds the key to the eventual end of disease, disability, and premature death. Yet the millenium for health lies far in the future.

The Problems Ahead

Many serious health problems persist. Today's youth must be prepared to meet these problems, respectfully yet confidently, in the days ahead. Some carry over from earlier generations, their conquest sure but the time uncertain. Tuberculosis is a case in point. This disease can be wiped out within the lifetime of the young people in school today if all that is known about it is used to best advantage. Other problems are still developing. Air pollution is a good example. As yet, because many contaminants cannot be seen, most people have not sensed the magnitude of this modern menace. Here, too, solution is possible if people are willing to do what is necessary.

Health education, if properly directed and with appropriate consideration for motivation, can help equip youth to meet and solve these problems for themselves and their families. It can indicate to them that many aspects of health are intimately personal and entirely up to the individual. Who but the one concerned can remember that important annual health examination or the biannual dental checkup? And who but the one afflicted can know about the suspicious lump, hidden by clothes, or about that sore that fails to heal?

Health education can also impress upon each youth that, in matters of health, he is his brother's keeper. Alone, no one can provide for the fluoridation of the community water supply, control an outbreak of communicable disease, or share the risks in health insurance. Health improvement in the years to come will depend not only upon the individual initiative of today's young people but also upon their capacity for cooperative action to promote the health of others.

Health education in schools today has an obligation to help boys and girls learn how they can best discharge their individual and group responsibilities for solving the anticipated health problems of the future. If they are to carry out these responsibilities effectively, they will need to understand the nature and scope of the problems they are likely to face and the most probable approaches to their solution.

Changing Disease Frontiers

History will record that almost simultaneously with the advent of Sputnik an effective vaccine against paralytic poliomyelitis became available. The latter achievment had far greater significance than polio prevention alone; it signaled the beginning of the end for the last major communicable disease then on the increase. Earlier, the other big killers among these illnesses had been brought under at least partial control in the United States.

In the years ahead, it remains for health education to do the rest of the job. True, there will be new vaccines; old ones will be refined; new preventive procedures will be perfected. Nevertheless, health education faces a major problem in attempting to motivate the public to take advantage of these protective measures. In the secondary school, this will require a new teaching emphasis, with greater attention to:

1. The importance of obtaining medically recommended immunizations for children during the first few months of life, with periodic reinforcement according to local conditions and regulations
2. Family responsibility for maintaining proper immunization status and for carrying out other recommended measures to control communicable disease.

Chronic Illness

Meantime, ahead in their struggle with communicable disease, medical scientists will be able to focus their efforts on the growing specter of chronic illness. For some time arthritis, cancer, heart disease, diabetes, and other chronic conditions may continue to show an apparent increase. This is to be expected with improved diagnosis and with more people living to the ages when they are most subject to degenerative diseases.

Great scientific breakthroughs undoubtedly lie ahead in connection with the chronic illnesses. Already spectacular advances have been made, including new technics in heart surgery, blood vessel transplants in vascular disease, radioactive isotopes and chemotherapy in cancer, new drugs and surgical techniques in tuberculosis, and oral drugs in diabetes.

Steadily, as time goes on, new and more potent weapons against the degenerative diseases will be found. But every evidence points to evolutionary rather than revolutionary progress. Preventive measures, including periodic medical examinations and prompt care when early signs or symptoms appear, will continue to be the best defense against these chronic conditions.

Again, this poses a difficult problem for health education. How can young people be motivated to seek needed preventive services in the years ahead? Despite new medical methods, it is the individual who remains responsible. With few exceptions, no one can compel him to get the needed care. Health education will be the chief reliance.

To prepare youth to face the problems of chronic illness intelligently, health education will be concerned with teaching boys and girls to:

1. Appreciate the fact that today's best security against chronic and degenerative disease is found in periodic health examinations and prompt care when suggestive signs or symptoms appear
2. Realize that the early indications of disease should be termed "life-saving signs" instead of "danger signals"
3. Understand that learning the facts about even a dread disease is a means of replacing unwholesome fear with healthy respect.

NUTRITION EMPHASES

Americans will eat "high on the hog" in the years ahead. Faster transportation and new methods of food preservation, probably including the use of antibiotics and radiation, will make more of all foods available all over the world all year round.

For the first time in history, the world can look forward to all of its people having enough to eat every day. This will mean improved nutrition and better health for millions in Asia, Africa, and other underdeveloped areas where, until now, existence has been possible for so many only at the barest subsistence level.

"Creeping Overweight"

In the United States and some other countries, however, this same bounty could result in the vastly greater problem of obesity and degenerative disease. Already "creeping overweight," as it has been labeled, is a major health problem in the United States.

Increasingly, young people seem to tend in this direction, and among the adult population there are an estimated 20 million with overweight problems—five million of those dangerously obese.[5] Unfortunately, the overweight problem is growing, as is the incidence of heart and blood vessel disease, diabetes, arthritis, and liver disorders. These and other chronic ailments strike the obese especially hard and often.

Weight control involves a judicious combination of rational exercise and right diet. It is mostly a matter of adjusting the intake in calories to the outgo in terms of activity. Nutritionists and physiologists, as well as physicians, are now stressing this point.

Wise Food Choices

Obesity is not the country's only nutritional problem. Many young people eat too much of the wrong kinds of foods and too little of the right kinds. They cloy their appetites for essential nutrients with poorly-selected, between-meal snacks. Worse yet, they fall for fad diets and nutritional fallacies.

Fortunately, the Department of Agriculture has recently developed a simple blueprint for food selection[6] to substitute for the more complicated "Basic Seven." The new plan divides essential foods into four easily-recalled groups: enriched whole grain bread and cereals, milk and milk products, meat and meat substitutes, and fruits and vegetables. The "Fundamental-Four Food Plan," as it might be called, makes wise selection of a balanced diet relatively simple and, because it stipulates portions, helps in "calorie containment."

The nutrition problems young people are likely to face in the future suggest new directions for health education in secondary schools. These include:

1. Emphasis on increased understanding of the need for a proper balance between eating and exercise in the maintenance of health

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[5] Metropolitan Life Insurance Company. "Overweight Shortens Life." *Statistical Bulletin* 32:1; 1951.

[6] U.S Department of Agriculture. *Foods for Fitness.* Leaflet No. 424. Washington, D.C.: Superintendent of Documents, Government Printing Office, 1958.

2. Use of simple guides such as the "Fundamental-Four Food Plan" to aid in the intelligent selection of foods and the procurement of a balanced diet
3. Stress on learning experiences which show that magic pills, vitamin tablets, mineral supplements, and special "health" foods cannot substitute for a proper diet
4. Demonstration of the fact that weight control is not a matter of crash diets, skipped breakfasts, or elimination of certain foods.

PHYSICAL ACTIVITY AND HEALTH

Will the coming years bring push-button, armchair existence in which a premium will be placed on avoidance of exercise and physical activity in any form? Or will the days ahead, with the increasing leisure that is inevitable, mark a time of turning from physical drudgery to enjoyable physical recreation? Such a transition seems to be the alternative to physical deterioration. Whether this transition is successful depends largely upon today's parents, teachers, and youth leaders.

Physical activity is only one avenue of recreation. But in the days to come, the use of the physical—for education and in recreation—will become increasingly significant. Thus, the quality of today's physical education and physical recreation programs will determine this vital aspect of living for tomorrow.

Lately there has been a growing appreciation of the importance of proper exercise in weight control and in the prevention of degenerative disease. There is increasing evidence also that exercise is a significant factor in maintaining the health of the cardiovascular system, perhaps even in the inhibition of the aging process. A subjective sense of greater well-being as a result of exercise is hard to prove but equally hard to deny.

That human beings are integrated individuals is a generally recognized concept. They have intellectual, emotional, social, and spiritual components. But none of the other components can reach their fullest realization without attention to the physical. With growing understanding of the need to maintain physical activity as an integral part of life, health education for healthful living in the future will:

1. Familiarize all pupils with elementary principles of the physiology of physical activity—the why and how of exercise
2. Emphasize the need for physical recreation as a replacement for the decreasing activity in daily living

3. **Stress health practices relating to physical recreation, including showering, sanitation, personal grooming, and control of communicable disease**
4. **Acquaint pupils with certain exercise precautions, including the need for periodic medical examinations, the hazards of the week-end exercise orgy, and the safety factors in physical recreation.**

UNSEEN HAZARDS TO HEALTH

In the days ahead, hidden hazards to life and health will become increasingly important. The problem of air pollution has been present for a long time, and now there are the added dangers of contamination of soil, water, and air by radioactivity.

The biggest environmental health problem of the first half of the twentieth century was how to provide citizens with a safe water supply and sanitary waste disposal. Now, even before this task is accomplished, public health must turn its attention to controlling air pollution and preventing radiation contamination.

Air Pollution

Contrary to the popular impression, the problem of air pollution is not confined to factories and other industrial installations; another major source of dangerous contaminants, for example, is motor vehicle exhausts. With growing industrial mechanization and more and more automobiles, trucks, and buses clogging the streets and highways, the problem will become increasingly difficult and complex.

Whether called "smog" or "smaze," air pollution remains a major public health menace. In its worst form, it has caused the death of susceptible persons and made countless others seriously ill. In its milder form, it is a source of continuing irritation to almost everyone and makes some people chronically ill. Also, there is considerable suspicion and some evidence that its contaminants may be a significant factor in the growing incidence of lung cancer.

Radioactivity

The National Research Council has estimated "safe limits" of radioactivity, apart from natural or background sources, at about ten roentgens. From these other sources (beyond the natural, that is), it is believed that each person now receives, on the average, less than half that amount.[7] That seems to be well under the "safe limits" of exposure (although not all authorities agree), but this safe situation could change.

With even the smallest nuclear explosion or the operation of even the most modest reactor unit, thousands of fission fragments are produced. Each of these is invariably radioactive and, unless something is done to prevent it, may be conveyed to any person in any part of the world. Thus, stringent controls will be essential, not only to protect the present population but also for the sake of future generations.

Only a people sensitive to these unseen hazards and alert to the need for their control can be expected to support protective procedures. Health education, therefore, faces a new and challenging task calling for:

1. Greater emphasis in health teaching on the growing problem of air pollution, its effect on health, and the need for proper controls
2. More stress on allaying fears concerning the medical use of radiation by teaching the facts about its careful employment and control
3. Increased attention to alerting pupils to the potential problems of radiation and radioactive waste in the environment and the necessity for proper controls.

Tomorrow's Tensions

As the pace of living increases, tensions build up accordingly. This is evident in the greater stresses of present-day living as compared with those a decade or two ago. One wonders if, in the years ahead, with rapidly increasing speeds, constantly expanding activities, and ever extending horizons, such tensions will become almost overwhelming.

Anxiety is also increased by the thought that the individual can do very little about the threat of atomic bombs or intercontinental missiles. True, even in this favored land, man has always been threatened in one way or another—from the days of the Indians through World War II. But always before, the individual could do something about it; he could either fight or flee, whichever action seemed most expedient.

With stresses mounting in an increasingly complex society, where will man turn to relieve his tensions? Will he bury his head in the sand, withdrawing from reality? Will he resort to tranquilizing drugs or seek solace in alcohol or narcotics? Or will he find a way to deal with the problems and live with the speed of the space age?

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[7] National Academy of Sciences--National Research Council. *Biological Effects of Atomic Radiation.* Washington, D.C.: the Council, 1956. p. 21-22.

Education can help youth find the way. It can help them learn to seek relief from tensions in good reading, good music, and other arts and crafts; to use nature's tranquilizers—her streams, her forests, her mountains, and lakes—to ease the stress of the workaday world; to turn to golf, hiking, tennis, archery, to all sports as constructive outlets for energies and aggressions.

The schools share responsibility for helping youth learn these things—not only their technics but also their application and values for mental health. Thus, far from being fads or frills, health education, physical education, and recreation education will assume new significance in the years to come. In the area of mental health, each will assist boys and girls to understand and appreciate:

1. That problems and perplexities are the common lot of man and a natural part of living
2. The need to learn constructive ways of dealing with problems, anxieties, and stresses
3. The values of counseling and the fact that seeking help is not a sign of weakness or inadequacy
4. Sound approaches to personality development and to learning to live and work effectively with others.

HEALTH RESPONSIBILITIES AND RELATIONSHIPS

A most important part of preparing young people for healthful living is to help them develop sound attitudes toward their responsibilities for individual, family, and community health. Just as there are some aspects of health that only the individual can ensure for himself, so there are others that only a family can provide for its members and still others that only a community can secure for its citizens.

The purity and wholesomeness of the food supply is a case in point. During adolescence, young people are achieving a measure of independence that would permit them to have an improper diet even though the family food supply was adequate. On the other hand, even if the youth in a family were properly motivated, they could not get a proper diet if the food for the family was poorly selected or improperly preserved or prepared. Similarly, without help from the community (education, regulation, inspection), neither the individual nor the family would have any guarantee of the safety or adequacy of the food purchased.

The relationships evidenced in this example are typical of those in other areas of health and emphasize the interdependency of the individual, family, and community in matters of human welfare. Each has definite responsibilities, and each has important contributions to make to the good of all.

Individual Responsibilities

Much has been spoken and written about the right of the individual to health; not as much has been said about the individual's responsibility for his own health. Yet there is no part of living that depends so much upon the individual as the promotion of personal health.

> In the past, measures for health maintenance demanded individual responsibility only to a limited degree. The development of pure water supplies, pasteurization of milk, and other sanitary accomplishments were achieved through social action in which the individual may have participated as a citizen, but was required to take no further responsibility.
>
> Future accomplishments, however, depend to an even greater degree upon the individual's assumption of responsibility for his own health. It is the individual who must consult his physician for early care, avoid obesity and alcoholism, and drive his automobile safely. These things can not be done for him. They require both information and motivation.[8]

This country has reached a stage in health advancement when what the individual does about his own health is more important than what can be done for him. By precept and practice, health education can help young people learn to realize the importance of self-reliance in health. Goals for the adolescent in terms of this attribute have recently been defined and, in substance, may be classified into three groups.[9]

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[8] President's Commission on the Health Needs of the Nation. *Building America's Health.* Report to the President, Vol. 1. Washington, D.C.: Superintendent of Documents, Government Printing Office, 1951. p. 1.

[9] Adapted from the Report of the School Health Evaluative Study, Los Angeles County Tuberculosis and Health Association, 1959.

Personal Living Goals

1. Cooperate in health appraisal, accept and adjust to his changing body, have good poise and body mechanics, keep himself in good physical condition.
2. Grow in his capacity for independence and decision-making, express his emotions in acceptable ways, understand his sex role, develop a satisfactory philosophy for living.
3. Know reliable sources of health information, select health products wisely, be able to distinguish between ethical medical practice and quackery, avoid the use of harmful substances.
4. Take advantage of available immunizations, seek prompt attention when danger signals of disease appear, care for himself properly when ill, do not practice self-medication.
5. Develop appropriate safety skills, foresee the consequences of foolhardy action, be a considerate driver and an alert pedestrian.

Social Relations Goals

1. Participate effectively with his peers, work well with people of other ages, have concern for other people, their plans, successes and failures.
2. Appreciate his own home and family, understand the responsibilities of marriage and parenthood, prepare for future family life.
3. Appreciate the importance of a family physician and dentist, choose health products and services wisely, feel an obligation for the safety of others, help to maintain the safety of his home.

Community Living Goals

1. Know school-community health resources, be interested in improving school-community health conditions, participate in appropriate school-community health activities.
2. Participate in discussions of school-community health problems, serve on health and safety committees as opportunity permits, report unhealthy or unsafe conditions to proper authorities.
3. Understand in general the qualifications of ethical practitioners of medicine and dentistry, be alert for frauds and quackery, appreciate the health professions as useful careers.

Family Responsibilities

Trends in American family life have led to less association between members of the family, less supervision of the young people, and sometimes less family stability. In terms of health, this can mean an unfortunate breakdown in daily living practices. For example, when both parents work and perhaps leave home before the children are ready for school, good organization is required to assure proper breakfasts. The same may be said for many other aspects of health supervision. In the next generation, this problem could become even more difficult.

In each phase of family life, there are implications for health. Health is a factor in choosing a suitable marriage partner, in maintaining family solidarity, in the proper development of children. Health responsibilities accompanying marriage can be taught in the best of taste to the benefit of secondary school youth; so can those specifics of family-life education having direct application to health, such as selecting medical and dental advisers, obtaining needed health services, securing health insurance, providing adequate housing, food, and clothing, and developing desirable health behavior within the family jurisdiction.

In the past, health teaching at the secondary school level has usually been concerned with two major areas, personal health and community health. With marriages now occurring at an earlier age and problems of marital adjustment and family management arising soon after, there is good reason to identify a third area—family health—as a focus for teaching attention. Through appropriate emphasis of this area, health education can make a significant contribution to preserving the integrity of the family as well as to its own goals of health.

Community Responsibilities

It is natural for young people to be interested, first, in the activities of their own age group; next, in the affairs of others close to them in their daily living; and, only remotely, in factors of community life that do not affect them directly and are not readily discernible to them. It is important, however, for youth to study the organization and functions of health departments, medical and dental societies, voluntary health agencies, and other groups that contribute to health at the local, state, national, and international levels.

Young people need to learn, firsthand whenever possible, about health conditions in their own communities, the personnel and facilities that protect their health and safety, and the problems that remain to be solved. They need to study, debate, and discuss the current state and national health issues. They need to learn about health needs in the rest of the world and the efforts being made to meet these needs. Probably most of all, they need to participate in school-community projects or activities that will help them gain an appreciation of service to others.

Health teaching must actively and deeply involve young people if it is to develop in them an appropriate sense of responsibility for the health of others. A practical example of such involvement was presented by one high school in which the health classes surveyed local health conditions and then used the needs revealed by the survey as the basis for their study of community health.[10] This type of information, relating to state as well as local needs, is available for similar purposes in most places. Sources include state and local health departments, other governmental agencies, medical and dental societies, and the voluntary health agencies.

Reports and surveys of health conditions in the United States provide a similar approach at the national level. For example, the National Office of Vital Statistics of the Public Health Service provides periodic reports on diseases, mortality records, and the like. The Division of Public Health Methods of the Public Health Service makes extensive surveys annually of illness in the United States. The Health Information Foundation, several times a year, publishes reports of studies of health resources and conditions throughout the country.[11] A recent illustration of valuable material concerning national health conditions was the summary report on preventable health problems made to the House Committee on Appropriations of the Eighty-Sixth Congress.[12] Critical study of these and other similar reports will not only broaden the view of secondary school youth but also improve their capacities for discrimination and evaluation.

International health is a matter of increasing concern with the growing realization that improving world health is a matter of self-interest as well as a humanitarian consideration. With the modern advances in transportation, distances have shrunk to the point where an outbreak of a communicable disease in Ceylon today could be a problem in the United States tomorrow. At the same time, more rapid communication and improved information media have brought this country closer to the health needs of the rest of the world. Study of the reports and recommendations of the World Health Organization and the World

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[10] West Los Angeles Health Committee. *Community Survey.* Los Angeles: Los Angeles County Tuberculosis and Health Association, 1956.

[11] Copies of these reports may be obtained from Health Information Foundation, 420 Lexington Avenue, New York 17, N.Y.

[12] U.S. Department of Health, Education and Welfare, Public Health Service. *Ten Preventable Public Health Problems.* Issue No. 73. Washington, D.C.: Social Legislation Information Service, October 24, 1960.

Medical Association can help young people recognize the importance of international cooperation in matters of health.[13]

How far one's concern for the health of his fellow man extends is, in one sense, a measure of maturity. This is not true, of course, if one's concern is too visionary to be practical. Nor is it true if one's concern is interpreted as doing things for people that they should learn to do for themselves. Within realistic limits, however, health education has the opportunity and responsibility to extend the health horizons of young people. Today these horizons reach beyond the individual to his community, state, nation, and world. Tomorrow they may stretch outward into space.

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[13] Materials are available from World Health Organization, United Nations, New York, N.Y., and from World Medical Association, 10 Columbus Circle, New York, N.Y.

OLIVER E. BYRD, M. D.

6

Challenge to Excellence

HEALTH AND SAFETY EDUCATION

Excellence in health—and in the related field of safety—encompasses many factors. It includes a high level of vitality and a long life. It involves acquiring knowledge and developing favorable attitudes toward those practices and beliefs that foster the improvement of health. It signifies appreciation of the importance of health to the individual and to the society in which he lives. It represents the application of good judgment to matters involving health. It includes stability of mind as well as capacity of the body.

Purpose is of major importance

in any phase of human life. High levels of vitality and great longevity have little significance if these potentials for creative effort are diverted into less noble enterprises. Thus the educator faces a challenge to excellence not only in health itself but also in terms of concepts, attitudes, purposes, and judgment.

Excellence in health should mean a long enough life to permit the individual to capitalize on his natural talents for both individual satisfactions and the improvement of mankind. The great artist whose life span is so short that he does not reach the age of his greatest genius has denied both himself and society the fruits of his creativity. This applies in every field of human endeavor, whether it be science, music, literature, or athletics.

When man lives a long time, he has at least the opportunity to express any talents that he might have; when he dies prematurely, all his possibilities are lost. If within one generation, 20 gifted persons should lose, on the average, 20 years of their productive lives by premature deaths from preventable causes, society would lose 400 years of genius in that single generation alone. What might those 400 years have produced for the good of the world?

Mere longevity is not sufficient. One who lives many years at a low level of vitality may be a constant burden to family and society. It is only when men have the energy to carry out their creative thoughts that productive efforts emerge to shape a better life for society.

Challenge of Concept

To achieve excellence in health, one must understand the meaning of health. Because health is such a universal phenomenon, its definitions have been broad and varied. These many concepts might be condensed into one which specifies vitality for maximum creativity over the period of a person's lifetime. But even in these terms, the problem of concept is a difficult one. No one can say just how much vitality each person should have. No one can judge accurately how much capacity for creativity an individual may have. Even in the creative person whose genius is demonstrated, it is not known what creations have gone unexpressed because of insufficient vitality or inadequate motivation.

Concepts of health, therefore, constitute a challenge to excellence. Without adequate concepts, leadership will be unlikely to provide sufficient direction to achieve high levels of health. If health educators meet this challenge of concept, the doors will be opened to still greater progress, the ultimate limits of which are completely unknown.

Challenge of Significance

Excellence in health can never be achieved on a broad scale unless its vital significance is made clear to leaders and citizenry alike. No one becomes very concerned over insignificant things. Few are likely to strive for excellence in the field of health unless its importance is well understood. Not only must the importance of health to the individual be clarified in terms of the goals he seeks for himself, but the significance of health to society in general must be made clear.

Only the medical historians have adequately emphasized the role of health and disease in the rise and fall of nations and civilizations. No population can long sustain a position of world, or even regional, leadership in the presence of extensive illness, low vitality, and short life. Senseless stress and tension among segments of society are often the product of poor mental health among leaders. No national or world leaders with emotional instability can provide the constructive, sane, balanced administration necessary for peace and understanding throughout the world.

Good health is basic for individual, family, community, national, and international activities on a productive and creative scale. It is the sick man, or the population of low vitality, that must be supported and strengthened by others until the illness is healed and the capacity for self-support and independence is established.

Nations throughout the world can be arranged in order of international leadership—whether in science, literature, art, music, statesmanship, or other productive categories—on the basis of the average length of life in these countries. Nations whose people have a short life expectancy lose too many productive citizens too soon to be able to compete successfully with those nations whose citizens have a significantly longer life span. Out of these added years come many inventions, scientific discoveries, and original and superior productions in every field.

Challenge of Purpose

To have good health is not enough. Life must have purpose. Health alone, existing merely for itself, can have little meaning.

When high levels of vitality and long life are associated with some major constructive purpose or ideal, then health comes to have its ultimate values.

Even in the individual's personal life, health must have a purpose. For the athlete, the restriction of smoking and drinking is meaningful because it is associated with improvement in performance. For the soldier in the field, physical fitness has meaning because it is essential for survival and attainment of military objectives. For the scientist, physical endurance has meaning when it enables him to spend long hours in a laboratory and work at a pace consistent with his driving enthusiasm.

Even at the international level, there must be moral purpose in the extension of human life. There are no humanitarian values when population expansion and increase in the general health level have aggressive, nationalistic, or political purposes that end in war.

Challenge of Orientation

There is challenge in the orientation of school administrators, faculties of schools of education, boards of trustees, and teachers in general as to the nature and significance of school health programs. Many school administrators, because they lack professional training in school health, look on health education as a relatively trivial matter, perceive the school nurse as representing the entire school health program, or are indifferent to any possibilities that are not required by the school code or other legal enactments. These school administrators, trustees, professors, and others must be brought to a better understanding of why the schools must be concerned with the health of the child, in terms both of its meaning to the learning process and of the broader implications of social progress and world leadership.

A common misconception existing in the minds of many school administrators who are interested in the development of a sound approach to the health of the child is that which emphasizes the school health service over the curriculum of learning experiences. It cannot be too forcefully stated that the school exists as a social institution for the one basic purpose of teaching. On logical grounds, this means that the curriculum of learning experiences in health must take precedence over the provision of health services. It may be true that, for the minority of children whose health problems are detected and corrected because of school health services, the increase in learning capacity may make these services of greater significance. For the great majority of normal, healthy children, however, it will be the instructional experiences that make the maximum contribution to the promotion and protection of vitality and life.

Better orientation of the faculties of schools of education can be the key to better understanding of school health programs, their relationships to the health and educability of children, and the strength and vitality of a population. Orientation of boards of trustees represents a more immediate means for improving existing health and safety programs. School boards carry a large share of the legal powers associated with secondary schools, and there is a continuing need for orientation and education of school board members because of their limited terms in office and their nonprofessional status in the field of education. Orientation of school administrators is much easier when their boards of trustees request a well-rounded health program, or when schools of education include courses in school health in the administrative curriculum.

Challenge of Knowledge

It is unlikely that human health can be maintained or improved on a broad scale without public knowledge of a large body of factual information. Even when concepts and attitudes are sound, health judgments and practices must rest upon a basic fund of knowledge. Challenge to excellence in health is therefore a call for more research, better distribution of knowledge, and better education in this field.

The tremendous amount of current research in the fields of medicine, public health, safety, and the many allied health sciences ensures a steady flow of greater knowledge. One challenge to the health educator comes in keeping up with the flood of new facts on health that are emerging from the thousands of laboratories and research projects. Even without the constant research, there is sufficient information now available to improve the health of the nation and the world. A great challenge to excellence in health education lies in making this information available to all, in translating the technical materials into nontechnical form which can be used by the teacher and understood by the general public. The individual must have broad health knowledge on which to base his decisions and actions.

Challenge of Attitude

Social psychologists long ago established relationships between attitudes and performance. An individual's health attitudes will affect his acquisition of facts as well as his application of them. A knowledge of what is desirable in health does not guarantee that favorable action will be taken. Most people know about the protection that immunization gives, but many will not avail themselves of this service.

Although Chapter 5 stressed the significance of attitude formation, the fact must still be faced that ways and means of favorably affecting attitudes have not been fully discovered. A challenge to excellence in health is the need for psychologists to learn more about the motivations, beliefs, and other intangibles that influence attitudes. Basic research is needed to discover more effective ways to develop and foster favorable attitudes toward desirable health practices.

The problem of attitudes, however, is not confined to the individual alone. Attitudes toward protection of the group are possibly of greater significance than attitudes toward one's personal health. It is important to know why the tuberculous patient may be uncooperative and indifferent to the hazard that he creates for others. It is important to know more about the origins of group attitudes at the adolescent level as well as in other segments of the population. Study of health attitudes over the whole range of human life is needed for the recognition of problem areas and for the intelligent and effective improvement of these attitudes. Within every culture resides a stubbornly resisting body of health superstitions and practices that will not yield readily to new facts and discoveries. Knowledge alone is not sufficient to guarantee intelligent action in the protection and promotion of health. It is a challenge to health and safety education to discover more effective ways of influencing human behavior and affecting attitudes in order to overcome these superstitions.

Challenge to Judgment

Concept, attitude, knowledge, and purpose may have an incomplete effect upon human health if judgment is faulty. Sometimes, judgment seems to be associated with a natural instinct for recognition of the significant as compared with things of lesser importance. Sometimes sound judgment seems to be associated with a natural grasp of human affairs and personal relationships rather than with factual knowledge. Sometimes judgment seems to come from experience and situation analysis. Whatever the origins of sound health judgment, developing it constitutes a challenge to the educator.

The problem-solving technique of teaching seems to have the greatest value for development of sound health judgment. It is not required that people have cancer in order to learn about the hazards of this disease; yet if educators can create in the classroom problem situations that call for the exercise of judgment, they may be able to develop this quality without risking impairment of vitality or length of life.

Sound judgment in consumer buying in the health field appears to have particular significance. Funds spent for unscientific services or for quack products and remedies not only place the health of the buyer in jeopardy but also reduce the economic capacity for proper medical care. A dollar spent unwisely in the field of health may have far greater detrimental effects than when it is expended in some other area. How to teach wisdom in the purchase of health services and health products is a vital challenge.

Health educators who spend their efforts solely in the transmission of health knowledge will find this approach inadequate. Learning situations that foster the exercise of judgment may be as important as the communication of knowledge itself, although it should be obvious that good judgment is impossible without the basic facts to support it.

Challenge of Practice

Unless the individual learns to practice sound health habits, then all other efforts have failed. It matters little if attitudes are right, if judgment is sound, if knowledge is factually correct, or if concepts are enlightening if there is no application of these things in the life of the individual or the group in which he lives.

The secret of practice is strong internal conviction plus the capacity for acting on it. Creating this state of affairs is a challenge to the educator. Motivation of a high order is necessary for the individual to overcome the inconvenience, the forgetfulness, the superstitions, the indifference, the fears, and the other factors that may hamper the application of knowledge in the field of health. The child or adult who is afraid of the dentist may not go to him for proper dental care, even though he knows he should seek this professional attention. The person who has religious scruples against the recognition of a communicable disease may not seek proper medical care for an infection, even though it costs him his life. The individual who is raised in a community with a cultural background that fears hospitalization may not turn to the resources of this social institution even though the need for hospital care is desperate.

Community support for the health protection of all represents sound health practice on a group rather than an individual basis. No one person can expect to be confronted with all the multiple health problems affecting a population. He can act and think, however, in a manner which shows that he recognizes the hazards that may exist for the total community. When he votes favorably for desirable health legislation, when he fosters group and community measures for the protection of human health, he is demonstrating in group practice what may not be necessary for him as an individual.

There is a challenge to the educator to find a way to overcome the many factors that may prevent the individual or group from practicing well-established health principles. He must find a way to stimulate the individual to practice those behaviors that modern medical and public health sciences have evolved for the promotion and protection of human health.

Challenge of Religion

Certain minority groups, with basic concepts and beliefs that conflict with the findings of medical science, will not likely accept the scientific facts on which health education is constructed. One of the problems confronting the field of health education is convincing these groups that there is no basic conflict between those measures that promote vitality and prolong life and any philosophy or faith that has the true welfare of humanity at heart.

A common meeting ground for such conflicting concepts lies in the promotion of vitality and the protection and extension of the life of the individual. Fundamentally, health education and all religions have the common objective of promoting man's welfare. Spiritual strengths and wholesome religious beliefs can be matched and reinforced by the strengths of vitality and long life that come from the lessons, experiences, and researches of the health sciences.

Both science and religion seek truth and fact above all else. A challenge to both educational and religious leaders lies in the acceptance of good from both fields, health and religion. When educators and clergymen strive to find common ground and are willing to make adjustments in their beliefs for the good of the individual, there may be some hope that a resolution of differences can be found.

Challenge of Evaluation

The results of health education must be measured by new and different principles. The customary tools of measurement used for evaluating results of instruction in other fields such as mathematics, history, and English are not adequate.

The purposes of health education are different from those that stress the acquisition of technical knowledge, often with emphasis on preparation of the gifted child. The purposes of health education are primarily those of maintaining or improving the level of vitality and lengthening the span of life for all persons, regardless of their intellectual status. These purposes cannot be measured by paper-and-pencil tests. They cannot be appraised properly within any short time. They must be considered in terms of influence over an entire lifetime. It is possible that a single bit of factual knowledge in the field of health may save a life tomorrow, next year, or 50 years from now. How, then, can the results of health education be evaluated?

There is a paramount challenge to educators to conduct long-range research that will establish the effects of this instruction over the lifetimes of hundreds of thousands of persons. Only then can there be a true assessment of the impact of health education upon society. This kind of long-range research need not be restricted to the causes of accidents, the prevalence of illnesses, levels of vitality, and differences in the life span. Theoretically, it should be possible to assess the losses and gains for society when gifted, creative, and productive persons live long lives at high levels of vitality, or die long before their normal biological expectancies. Thus, the challenge to health education is both to discover differences in vitality and length of life among those who have had health instruction, as compared to those lacking this instruction, and to strive to discover what those differences, if such exist, mean to society in terms of lasting contributions in science, literature, art, and other fields.

Challenge to Action

Problems in the field of health education represent a challenge to action. Enough knowledge now exists to save thousands of lives each day. The application of these facts represents the immediate challenge; the discovery of new facts is the challenge of the future.

Individuals, communities, and nations do not live in isolation. There must be concerted and coordinated action for the promotion and protection of human lives if maximum results are to be attained. Superficial differences in viewpoints between professions, academic fields, communities, nations, and races must be resolved in a common desire to achieve maximum results for the welfare of humanity. Achievement of this coordination of effort and action is a major challenge that will not easily be met, but difficulty of accomplishment should never be a deterrent to action.

In the meanwhile, each individual must do whatever he can, even though he recognizes that he alone cannot gain a full victory over disease, accident, and premature death. Out of multiple individual efforts can come the composite accomplishment, but progress will most certainly evolve more smoothly if there is planned and coordinated community effort. Action must not wait, however, until all can work together. The challenge is to do something—now!

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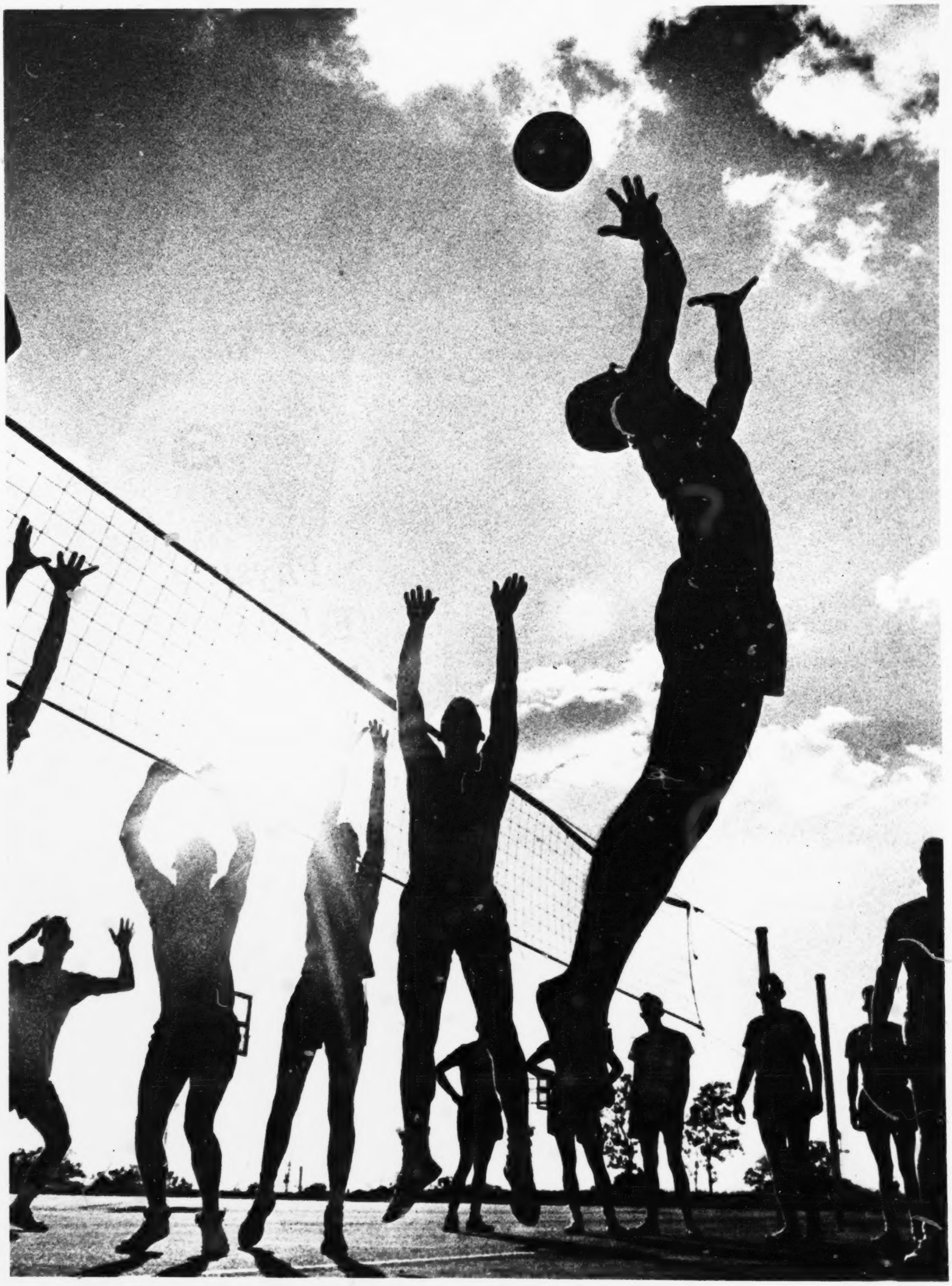
part 3

Physical Education



ARTHUR H STEINHAUS

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Health and Physical Fitness

Man's body consists of 208 bones that are articulated in a fantastically movable skeletal system. Wherever two bones come together, there is a joint where smooth surfaces permit movement. Ligaments hold the bones together and limit the amount of movement. The moving is performed by nearly 650 muscles that are attached to these bones.

In a 150-pound man, the bones weigh about 21 pounds and the muscles more than 60 pounds. The muscles are composed of uncounted millions of tiny cylindrical fibers, each about the thickness of a fine hair, with an average length of about 1¼ inches. Each fiber receives a slender nerve strand that may fire up to 75 nerve impulses into it each second. The more impulses per second, the stronger is the contraction.

Five to six quarts of blood, distributed through some 5 billion tiny tubular vessels or capillaries with a total length of 1500 miles, bring oxygen and food to all body parts and carry off their wastes. In rest, the blood makes between one and two trips a minute from heart to lungs, back to the heart, then to all body parts and back to the heart. During strenuous exercise it may make nine such trips in a minute. To pump the blood is the work of the heart. Even at rest, the heart handles about 11 tons of blood a day, pushing it out under a pressure of about 3 pounds per square inch.

Food is fuel for the body machine and also substance for its growth and repair. Unused food is stored as fat. If man could utilize gasoline, his body could run about 11 days on a gallon.

Uncounted miles of nerve fibers comprise man's brain and nervous system. Here in thousands of centers are made the infinite varieties of connections that determine all body movements and the limitless thoughts, memories, imaginations, and split-second judgments of each day.

Fitness means keeping this complex mechanism in good working order. Everything one does affects his body machine for good or bad. The purpose of this chapter is to suggest ways by which exercise of the right kind and amount will help attain and retain fitness.

Training and Practice

Training and practice are sometimes confused. The purpose of training is to keep muscles, heart, circulatory system, lungs, and other organs in good condition. The purpose of practice is to develop skill in the use of the body. Thus man trains his muscles to develop greater strength and his heart for greater endurance; but he practices shooting baskets, serving a tennis ball, or playing the piano in order to perform more excellently. The development of skill is largely a matter of learning, in the brain. This takes much repetition and is time-consuming. The training of muscles, heart, and lungs generally means stimulating these organs to grow and renew themselves by performing activities that tax them beyond their normal use. This is known as *overload.* It should be pointed out that attainment of the highest skill always depends on the availability of sufficiently strong and well-developed muscles and other organs. Thus a basketball player whose leg muscles are strong can learn to jump higher and more accurately than one with weak muscles.

Strength

Human muscles are astonishing machines. A muscle whose cross section is one square inch can pull 140 pounds; two square inches can pull 280 pounds. The right kind of exercise makes muscles grow stronger in a hurry. A muscle that is just able to lift 100 pounds will be stimulated to grow when it is exerted to lift about 40 to 50 pounds (or about one-half of its maximum strength). Recently it was discovered that only one such contraction, held for a few seconds just once a day, makes muscle strength grow as fast as it possibly can. Repeating the exercise several times a day usually has no further effect. Thus contracted once daily for a week, the average muscle will be 4 percent stronger after one week, 8 percent after two weeks, and so on, until it can grow no stronger. Since most people have no way of measuring their muscle strength exactly, it is easier to tell them to contract their muscles to maximum, or until they quiver, for a moment just once a day.

If a muscle is never required to exert itself to more than one-third of its maximum strength, it will not grow at all. If only exerted to less than one-fifth of its maximum strength, the muscle will actually get weaker. One purpose of exercise is to keep muscles so strong that they will do the day's work easily and painlessly. For this reason, exercise should be a little more strenuous than regular work—it should be an *overload.* Good trainers employ this principle in many ways to train athletes for competition.

Flexibility and Agility

For one's body to move easily and efficiently, the joints must permit plenty of movement. This is known as flexibility. When joints are not used in large movements in all directions, the ligaments tend to tighten and one becomes "stiff." This is particularly noticeable in older people. Flexibility is best maintained by using all joints regularly through the full range of motion for which they are adapted.

Strength combined with flexibility is necessary for agility. Given enough strength and flexibility, a clumsy person may become agile through practice.

Endurance and Fatigue

Endurance means the ability to persist or continue in an activity for a long time. The more endurance one possesses, the longer he may postpone the onset of fatigue.

Fatigue is sometimes defined as "loss of use due to use." As long as a muscle or other organ receives enough food and oxygen, and as long as any waste products that it produces are promptly carried away, that organ continues to function.

If function stops because the food supply or other necessary substances are used up, it is a case of *fatigue of exhaustion.* This is uncommon but may occur in instances of long marches, channel swims, and marathon runs when food is not taken en route. The much more common cause of fatigue is the accumulation of waste products because the circulatory system either fails to supply enough oxygen to prevent the formation of wastes or fails to remove such waste products promptly. Because these waste products interfere with necessary chemical changes, this kind of fatigue is called *fatigue of depression.*

In any event, endurance depends in large measure on a strong, well-functioning heart and blood vessels. The heart of a distance runner at rest beats 50 to 60 times a minute. The heart of an average nonathlete must contract 70 to 90 times. But the athlete's heart is not lazy. With 60 beats, it pumps more blood than does the nonathlete's heart with 80, because it is pumping more blood with each beat (almost 3 ounces instead of only 2). During exercise, it speeds up correspondingly less.

Why is it good to have a slow heart? Only when the heart is resting between beats can blood flow through the blood vessels in its walls to bring oxygen and food. In a slow heart, these rests are longer. In this way, a heart beating 60 times per minute gets about 18 days more rest each year than does the 80-beat heart.

Exercise, when continued for a long time, is good for the heart. Trained hearts are larger, stronger, slower, and steadier. Activities of strength, such as weight lifting and short sprints, develop powerful body muscles but do not tax the heart muscle enough. Wise athletes, therefore, balance such exercise programs with distance running, basketball, water polo, or other sports that develop heart and lungs for endurance. Many sports are good endurance-developers.

There is no scientific foundation for the old-fashioned notion that exercise injures the heart. The term "athlete's heart," to mean a heart supposedly injured by athletics, has disappeared from scientific and medical writings. But a heart already injured by disease or other factors may suffer extra abuse under exercise. When the motor of a car is in good shape, fast driving will not hurt it; but when the pistons slap and the bearings rattle, even slow driving is bad for it. Heart specialists now recommend carefully controlled exercise programs for many patients who are recovering from heart disease.

Smoking speeds up the heart unnecessarily. What is even more serious, it often contributes to real and lasting damage by the time a smoker reaches middle age.

Posture

Poor posture does not cause tuberculosis or other diseases of the internal organs; it is, however, the most common cause of aches in shoulders, back, and feet. Poor posture also spoils a person's appearance and decreases his physical efficiency in standing and moving.

The average modern man uses his muscles as little as possible, and today's labor-saving gadgets really pamper him. The resulting muscle weakness shows in three places. First, many men and most women are weak in hands, arms, shoulders, and upper trunk muscles. Consequently, their chins protrude and their shoulders sag. Second, weak abdominal muscles, accented by a layer of fat, allow the pelvis to sag. This tips the spine forward in the lower back, and the resulting sway-back invites low back pain. Third, many people have weak, aching, and deformed feet and cannot enjoy movement of any kind. Instead of walking with every foot muscle and pressing the tips of five toes to the ground with every step, they just stump along. With their feet encased in poorly fitting shoes, they seem to walk over their feet as over solid clods on the ends of stilts—and high heels don't help matters.

With age, it all gets worse. Soon a person leads with his chin, his belly, and his bunions. This need not be. It can be prevented and corrected with simple exercises. Throwing the shoulders back is not a good exercise.

The pelvis, at the bottom of the spinal column, is the foundation of posture. If the pelvis is held in proper position, the spinal column will be properly poised and the shoulders will take care of themselves. If the muscles of the upper trunk and neck are properly strengthened, the head will be held correctly. If muscles of the legs and feet are properly developed and not hindered by poorly fitting shoes, they will bring the foot into proper position.

Here is an easy way for any person to determine if the shoes he wears are good for his feet. Either barefooted or in stocking feet, stand with full weight on one foot on a piece of thick cardboard. With a soft pencil, outline the foot on the cardboard. Now, with a pair of scissors, cut out the foot shape and put the piece into the shoe. If the piece does not fit properly, the shoes are doing the feet an injustice and in time will produce pain and permanent deformity.

Relaxing Body and Mind

In physical fitness, relaxation is just as important as exercise, but it is not often understood. Correctly defined, relaxation is "zero activity." The man who says he gets his relaxation on the golf course is really speaking of diversion. Diversion of the mind from the problems of the day is a very important value of games and sports, but it is not relaxation in the true sense.

Relaxation means reducing muscle activity all over the body to as near the zero level as possible. The muscles themselves do not need such relaxation, or even sleep. In fact, muscles recover faster from hard work when they continue in moderate activity. However, sleep and relaxation are needed by the central nervous system, especially the brain. The brain is kept active by all kinds of impulses that come to it from the eyes, the ears, the skin the internal organs, and especially the muscles. To give the brain a chance to rest, one must reduce all of the incoming impulses to as near zero as possible. This means turning off the light, closing the eyes, cutting out all kinds of noise, making clothes and temperature comfortable for the skin, regulating visceral functions through hygienic eating and elimination, and—hardest of all—relaxing the muscles of the limbs, trunk, face, eyes, and speech until every bit of tension is gone.

Everything in this fast-paced, modern life seems to work against relaxation. There is good reason to believe that such conditions as high blood pressure, some forms of heart disease, stomach ulcers, and colitis are aggravated, if not caused, by the tensions that so-called civilized living generates in people. Fortunately, the individual can do something about this if he is willing to work at it. Following are a few suggestions. The last one is the most important and the most difficult to master.

Avoid unnecessary noises such as bellowing radios and honking horns. Sleep in a quiet place.

Develop a pleasing, well-pitched voice.

Wear well-fitting, comfortable clothing. Toes should not touch the end of stocking or shoe.

Always rest in dim light or darkness. Rest eyes frequently by closing them or looking far off into the distance.

When resting, relax all muscles. This is called total relaxation. When working, relax all muscles except those actually needed for the job. This is called differential relaxation.

Relaxation is a skill that requires much time and practice to learn. Here are a few helpful hints.

Contract the muscles of arm and hand until the feeling of tension is recognized. Now relax these muscles until the feeling disappears. Next time, contract the muscles a little less and again let go. Repeat this until every bit of tenseness is gone. Then try the same on other muscles of the body, one after the other—arms, legs, thighs, trunk, shoulder, back, and finally the face, eye, and tongue muscles.

When one has learned to relax completely, falling asleep will be easy. In fact, even without sleeping, a person will find that his thinking slows down, actually stopping for a while. Songs that run through his head will stop when he relaxes his tongue and voice muscles. From just a few minutes of complete relaxation, he will get surprising recovery of mental powers.

For the proper learning of relaxation, as for every other skill, it is best to take instruction from one trained to teach it.

Exercise and Weight Control

Too many Americans are overweight—a condition that very likely shortens life. Control of body weight is probably the best way a person has within his power to lengthen his own life.

Exercise requires the body to burn up more food, but this extra oxidation is surprisingly small. Exercise for reducing weight is complicated by the effect of exercise on appetite and the intake of food. Moderate exercise, if not accompanied by greater food intake, will result in slow and satisfactory weight reduction; if, however, exercise is vigorous enough to stimulate the appetite, it is possible that more calories will be taken in than are "exercised off." For these reasons, no weight reduction program is likely to be successful without some attention to diet, certainly not the much advertised programs of effortless slenderizing. Taking pills to reduce hunger is not without danger.

Most obesity is due to overeating; however, before starting a strenuous weight reduction program, a person should seek his physician's advice to make sure that he is no rare exception. Then he can take off weight by following a few simple rules. First, plan to lose not more than two or three pounds a week. Second, decide to develop new eating habits. Simply taking smaller helpings, no seconds, and no between-meal snacks may be sufficient. Third, each day take in fewer food calories than needed, but never stint on such essential foods as milk, eggs, lean meat, fruits, and a variety of raw and cooked vegetables. Fourth, increase fuel consumption by a regular, moderate exercise program that does not stimulate the appetite. For example, an hour of table tennis a day for 17 days will take off 1¼ pounds.

A small amount of extra exercise every day makes sense. The common practice of trying to lose several pounds on an occasional week-end "exercise binge" is likely to prove disappointing.

Principles and Rules About Exercise

Muscular strength increases throughout childhood and adolescence, usually reaching a maximum between the ages of 26 and 30 in men and considerably earlier in women. Then follows a gradual decline. The heart and circulatory system also tend to lose performing ability and resilience for rapid recovery after exercise. These changes vary considerably with the individual and depend on living habits as well as on constitutional disposition.

Precluding accidents, a normal, healthy child cannot do himself permanent organic injury by physical exertion; however, among persons over 40, physical examinations and observation of the individual's reaction to exercise will disclose large numbers who need to restrict exercise.

There are measurable differences between the sexes in heart capacity, muscular strength, and skeletal proportions. These differences impose greater limitations on women in activities of strength, speed, and endurance. In spite of these limitations, women have always shown marked capacity in activities requiring hard work and staying power. With the possible exception of heavy lifting, falling from heights, or other activities involving greatly increased intra-abdominal pressure, women will profit from most forms of exercise.

Exercise has been shown to be beneficial in some purely functional menstrual disorders. During the menstrual period, exercise should depend on the individual's menstrual experience and her reaction to physical work at that time. Some women may not need to modify their exercise at all, while others may desire to reduce it. A few may require rest.

The time of day for exercise may well be in accord with individual inclination and other determining circumstances. Evidence as to the effect of exercise on digestion indicates that great physical exertion does not necessarily interfere significantly with digestion, though strong emotion may do so even when unaccompanied by exercise. Laborers and farmers customarily work hard immediately after meals. On the other hand, coaches seldom permit athletes to eat heavily before competition involving emotional strain.

All persons should be declared by medical examination to be organically sound before performing strenuous training routines or engaging in competition. Such medical examination should be repeated at least once every four years (yearly for varsity athletes) and whenever there is reason to suspect any health problem.

Persons who are out of training should not engage in strenuous competition, especially with persons who are in training.

Persons should not compete with those of disproportionate size, endurance, or skill when these are significant factors.

The ability to recuperate after exercise is a good guide at any age. Recuperation should be reasonably prompt. If breathing and heart rate are still greatly accelerated at the end of ten minutes after exercise, and if there is marked weakness or fatigue persisting after a two-hour rest period, restlessness with broken sleep after retiring for the night, or a sense of definite fatigue the day following, the exercise has been too severe or too prolonged for that individual in his present stage of training and physical strength.

There is ample evidence that blows to the head cause permanent and irreparable damage to the brain. Boxing, which is the only activity in which blows are purposely aimed at the head, can therefore not be recommended as a desirable activity until such blows are forbidden.

Training for any athletic event contributes more to physical fitness than does the event itself. For this reason, intramural competition, which usually is undertaken without preparation, falls short of contributing maximally to fitness.

Good, hard physical conditioning is one of the surest safeguards against injury in any athletic or gymnastic activity. Proper clothing, safe equipment, appropriate warm-up, and freedom from fatigue are also essentials for satisfactory and safe competition.

Activities such as tumbling, rebound tumbling, and other apparatus work should always include the most careful attention to safeguards—training belts, appropriate mats, padding on frames, and the ever-present, well-trained spotter. Every gymnast should also be a good spotter.

Weight training, in which weights are used to develop muscular strength, is a most valuable adjunct to training for many forms of athletic competition. Weight lifting for the sake of establishing records in lifting weights is not harmful when done properly. However, it should be practiced in moderation by growing boys under 18 years of age because of possible damage to the epiphyseal cartilages of growing bones. The possibility of such damage is also the main reason why tackle football, which involves hard body contact, is deemed undesirable for boys below the tenth grade.

Challenge to Education

Health and fitness are not ends in themselves. They must be considered as means that enable the individual to be a more effective parent, worker, and citizen for a longer time. Thus the real goals of education for health and fitness are the addition of years to life and—what is more important—the addition of life to years.

The individual in today's world is glibly promised healthy living if he but buy the right bottle or brand. He is urged to wake up with coffee, stay awake with pep pills, and go to sleep with barbiturates. He is advised to take vitamins to increase the appetite, special tablets to shut it off, and an expensive "shaking course" to bring the caloric outgo into balance with intake—all without painful exercise or dietary restrictions. He steers with power, shifts gears with buttons, and tunes TV from an E-Z chair. For pleasure he smokes something up front of a filter that protects from the irritation that is up front. He is advised to drown his worries with wine, reduce his tensions with tranquilizers, and deaden his pains with aspirin.

Obviously, such assortments of artificial supports to body and mind are the prescriptions of peddlers and shysters who make dividends out of man's difficulties. With them, education can form no alliance.

The goal of the high school could well be to help its students develop those inner resources that will permit them to work and play, sleep and wake, alert and relax body, mind, and viscera—all without external, artificial aids. For only then is man truly educated.

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MARGARET A. BOURNE
LEO J. SAMUELSON

8

Physical Skills

The core of physical education is physical skills—the process of acquiring them and of maintaining and improving them. In physical education, youth progress toward mental, social, and emotional goals, as well as toward physical achievement, through physical skills. Though these nonphysical areas may be considered indirect learnings and not exclusively derived through physical education, their achievement is an integral part of learning physical skills. To teach facts is not enough; educators must teach their meaning. To acquire strength is not enough; they must teach its control. To achieve organic vigor is not enough; they must teach how to maintain it. To learn skills is not enough; they must teach their values. In Dr. Oberteuffer's words:

> The heart of modern physical education is in the development of skills in a variety of activities chosen appropriately for and by the individual in relation to his interests, needs, and capacities. Hence, the core of teaching in physical education is to teach, to instruct, to show, and to demonstrate the skills of the myriad of activities used in a program.[1]

The consideration in this chapter is physical skill as a vital and basic part of physical education's contribution to youth—not as a separate entity, because it cannot be separated, but together with those areas which comprise all the facets of a human being.

> It must be clearly recognized that learning anything involves the whole organism. In some forms of learning the motor muscular elements are more prominent than in others, but in every instance the process of learning involves the total being and not merely the "intellectual" parts of him.[2]

Only if this is kept constantly in mind can physical skills be fully and honestly discussed.

The common denominator of physical skills is activity or movement. Movement is a living quality. Without life there is no activity. Only through physical action can the endowed potential of the individual be fulfilled in growth and development, maintain its organic vigor and endurance, increase the years of active participation, and meet the demands of today's social culture. Physical educators are dedicated to the belief, physiologically proven, that man demands physical movement. In this they are alone, for no other area in education concentrates its efforts upon this fundamental truth.

> The body is the means, the instrument for experiencing and for the expression of the integrated response of the total unity—the personality. It is, therefore, the means of living and learning. It is essential that it be an instrument at the command of the desires and wishes of the self. Teachers of physical education should face realistically the grave fact that mistakes in body education are

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[1] Oberteuffer, Delbert. *Physical Education.* Revised edition. New York: Harper and Brothers, 1956. p. 242.

[2] *Ibid.*, p. 243.

> mistakes in personality education. Movement, the stuff with which physical education is concerned, is the fundamental element in human life.[3]

Youth in secondary schools are in the later stages of the growth and development process. Secondary teachers must deal with youth at a time when the range of variations is broad and individual differences are pronounced. They must accept the individual as he presents himself and plan for his achievement. They must strive to continue his developmental process within his own limitations. Physical educators must help him help himself reach a state of physical well-being. They must inspire him to improve his skills; for youth, like adults, are active in those things which they do well. For lasting values, there must be skill—not necessarily championship skill, but skill nevertheless. The educator must ascertain the student's understanding of the need for activity sc that maintenance and improvement of his well-being become his own concern. Then physical ability becomes a matter of individual pride.

In considering physical skills, there are two points of special importance. What physical abilities may be expected of early adolescents? What physical skills have been included in the elementary school physical education program?

The abilities of the adolescent age have been well covered in all good professional programs of education. Research studies have shown the strengths and weaknesses to be expected from most of the students. Programs of physical education are based upon these generally accepted criteria. This theoretical starting point has been extremely useful and has served well in the past. Now, however, we must become more specific.

Although attention is being directed to adolescence, it must be remembered that childhood precedes it. All experiences in children's activity need to be considered in planning for youth. The activity programs of the elementary schools, and those of public and private recreation, have been improved and are continuing to improve. The actual physical skills which freshmen possess when they enter high school can no longer be ignored. Elementary school physical educators, as a whole, have surpassed their colleagues in secondary school and college in establishing for their students attainable standards of achievement in physical skills. In order to reach these standards, they have expanded the old methods of teaching and created new ones. They have copied some of the traditionally accepted procedures of the secondary schools in physical education and athletics. They have proved that better techniques of teaching mean that more boys and girls possess more skills.

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[3] Cassidy, Rosalind F. *Curriculum Development in Physical Education.* New York: Harper and Brothers, 1954. p. 125-26.

What does this mean for the secondary school? First, it means that the teachers need to know their students' present physical skills and past experiences in movement. Second, it means that physical educators can no longer be isolationists. The program has no meaning, no stability, no future for youth, if it does not build on the students' existing base of experience. Third, it means that, individually and collectively, locally and nationally, secondary school programs in physical education must be reappraised. It is time to create, to invent, and to evaluate new techniques, new methods of teaching physical skills. It is time to broaden horizons, to experiment, and to stimulate students to reach for happiness and satisfaction in physical accomplishment.

Skill is a learned process, developed through action—"the conscious acquaintance with and mastery of all parts of the body that may properly come under voluntary control."[4] All movement is not skilled. Movement which is consciously controlled and efficiently executed produces skill. The degree of skill is in direct proportion to the amount of control and the success of execution. Mastery of physical movement is a continuous process from birth. Development of skill is based upon principles of movement. Jesse Feiring Williams, in *Principles of Physical Education,* says:

> Physical education should exemplify in all activity the principles of movement. There are six well-known principles of movement. These are derived from an analysis of human structure and observation of persons who are able to perform very successful movements. They have their roots in racial patterns and bear a direct relationship to the anatomy, physiology and kinesiology of man.

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[4] Cowell, Charles C., and Schwehn, Hilda M. *Modern Principles and Methods in High School Physical Education.* Boston: Allyn and Bacon, 1958. p. 144.

Williams' "principles of movement" are these:

1. *Opposition*—use of opposite parts of the body.
2. *Energy-activity ratio*—correlation of parts of the body for the purpose of securing the result sought with the least expenditure of energy and with the most favorable adjustment of the body at all times.
3. *Qualitative adjustment*—application of speed or force to movement at the proper time. Speed, strength, and endurance are qualities that may be added to movements after form has been determined.
4. *Follow-through*—continuation of the moving part in the line of motion at the time of impact. This is basic to good performance.
5. *Objective focus*—attention upon the immediate objective rather than upon subjective sensations.
6. *Total assembly*—good movement involves the whole body and not merely a moving part. In efficient movement, the whole neuromuscular organism is activated to an end.[5]

During adolescent years, the body reaches its maximum powers in the use of its musculature and in its capacity to learn motor skills. During this period, physical education can make its greatest contribution. Secondary school physical educators have a complicated task. Youth have all degrees of physical skills, rhythmical sense, and ability to learn physical activities. There are those who need to improve their control and execution of movement. There are others who are ready for concentration on the finer points of specific skills. All, however, are eager to discover particular activities that require skills which they are capable of acquiring and which will bring them enjoyment and satisfaction.

Random action, which expresses a need of the child, is not enough for the youth. He wants action, too, but for additional reasons. He has changed the goal of activity, as an end in itself, to a goal in which the activity is desired for some other purpose. Perhaps it is for social reasons, perhaps for recognition. Cowell and Schwehn write: "We continually think of skills and abilities without considering the purposes these skills and abilities are to serve. Purposes tell us *why* students want ability and should, therefore, receive first consideration."[6] To meet the abilities, interests, and needs of youth, the secondary school physical education curriculum should contain a broader range of activities with instruction at a higher level than that of the earlier school years.

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[5] Williams, Jesse Feiring. *The Principles of Physical Education.* Seventh edition. Philadelphia: W. B. Saunders Co., 1959. p. 252-56.

[6] *Op. cit.*, p. 21.

A broad and varied secondary school curriculum might well include activities in the following categories:

Movement fundamentals
Games, sports, and athletics
Rhythmic activities
Aquatics
Self-testing activities

These categories have been chosen because there are different skills required in each, or there are different emphases on the same skill.

Movement Fundamentals

In this chapter, movement fundamentals mean primary action: *basic locomotion*—walking, jumping, hopping, running; *daily chores*—pushing, pulling, lifting, carrying, reaching; *posture*—standing, sitting, walking; *relaxation*—partial, complete; *elemental skills*—throwing, kicking, striking; and adaptations of these in daily living. Although many of these actions are found in other categories, the emphasis differs.

Movement fundamentals are concerned with skills which all students use. The desired goal is control of the body in all the demands made upon it, from making the bed and carrying out the garbage to shoveling the walks and doing the ironing. Physical attractiveness in male or female is increased by smooth, controlled bodily movements. Physical poise—the proper relationship of the various body segments in static positions or in movement—is a coveted attribute. Unknown or untried capabilities, rather than actual physical limitations, may be the cause of poor control.

Through movement fundamentals, the skills necessary in efficient daily living can be taught. As these skills are learned, satisfaction in movement may encourage further participation in activities in other areas. When daily tasks consume the supply of organic vigor, strength, and endurance of the students, it would be well to emphasize movement fundamentals to help them in improving skills for more efficient performance and greater physical poise.

Games, Sports, and Athletics

The primary actions found in movement fundamentals provide the basic skills required in sports and games. Walking and running are, of course, basic to all activities which may be included in this category. In addition, each sport emphasizes its own particular skills. Since no two sports demand the same skills in the same manner or to the same degree, a wide variety is most desirable for the high school student. Youth need to be strengthened symmetrically to keep opposing muscles in a balance of strength. A broad program which includes all gross bodily movements will encourage all-round development.

The skills demanded by games and sports include skill patterns, locomotor patterns, and spatial relationships. The manner in which a student is able to combine these three will determine his ability in a particular sport. These are common elements in most game activities. For example, underhand action is found in the softball pitch, the volleyball serve, the basketball pass, and the bowling delivery. The slide or shuffle is desirable footwork in tennis, basketball, badminton, and softball. The jump-and-reach is indispensable in basketball, volleyball, and speedball. Sports, in nearly all instances, have a moving object which requires bodily adaptations to its speed, direction, spin, and distance. Understanding of movement and transfer of learning can be encouraged by pointing out the similarities which are present in various sports and games.

Team, dual, and individual sports provide end products of importance to the individual. Organic vigor, bodily control, strength, and endurance are developed in each player. Sports provide one of the few opportunities in society to make a supreme physical effort. The surest sign that a student will possess an abiding interest in an activity is the possession of skills above the dub, or beginner's, class.

Rhythmic Activities

Rhythmic activities, which generally include all kinds of dance, are part of man's cultural heritage. Man has always expressed his emotions by movement. Through the use of his body alone, man has told of his joys, sorrows, aspirations, and desires. Each period in history has its accompanying dance patterns and styles. The development of society can be followed in the changes of the dancing of its people. Dancing is a part of man's social life and, as such, demands skills which are vital to man in his society. Certainly, this is sufficient reason for including rhythmic activities in the physical education curriculum for youth.

Physical educators are indebted to Elizabeth Burchenal who, more than any other person, encouraged folk dancing in schools. These dances of the people demand rhythmical skills of body movement as well as an appreciation of their national origins. In combined study or core programs, folk dancing is the most readily integrated area in physical education. Social and square dances—actually American folk dancing—are a synthesis of all the folk dances brought by immigrants into this country.

In keeping with their heritage, youth need to know how to move rhythmically. Relationships with the opposite sex are especially important in adolescence. Couple dances, as found in both social dancing and square dancing, assist youth in their adjustment. Physical education cannot neglect these skills if it is to make its full contribution to the development of the students it serves.

Creativity is by no means exclusive to dance. However, it is more generally identified with an original choreography than with a cleverly executed dodge in basketball. Original, inventive actions are special contributions which society seeks in its people.

Aquatics

The need for aquatic skill is well stated in the American Red Cross publication, *Life Saving and Water Safety.*

> Man did not and does not naturally belong in the water. He lives, walks, eats, and sleeps on land. His whole physical make-up, posture, body temperature, breathing apparatus, shape and arrangement of arms and legs, specific gravity, functions, everything has been developed and is arranged for terrestrial living. There is literally nothing to indicate that there is anything natural about his aquatic activities, yet an unbounded curiosity, a dominant will and a marvelously adaptable brain and physical structure have not only urged him into the water but have prompted him to develop a form of locomotion suited to his needs in the new element. He has found comfort, relaxation, and enjoyment in the experience, but at the same time experience has taught him that in the water there are definite limits beyond which he cannot safely go and that there is a certain amount of knowledge of water conditions which he must acquire.[7]

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[7] American National Red Cross. *Life Saving and Water Safety.* Garden City, N.Y.: Doubleday and Co., 1956. p. 1.

Real safety in water is largely a personal matter—a matter of knowledge combined with skill. The lack of skill in this area is most dramatic, for it may be a matter of life or death. This fact becomes more crucial with the ever-increasing recreational opportunities and interests which center in and on the water. Scuba diving, water skiing, use of small craft, and fishing are some of the popular activities. Each of these requires swimming and water safety skills for comfort, enjoyment, and perhaps survival.

Individual swimming skill is the primary need in aquatics. This means the ability to move and to control the body in water. It includes what to do on the surface and underwater and how to do it. Constant attention needs to be directed to the prevention of accidents and the control of conditions which may cause dangerous situations. These aquatic skills can readily be included in the physical education program for youth, provided facilities are available. Fortunately, communities are realizing the importance of these skills, for there are increased swimming opportunities in schools and recreational programs throughout the country.

Self-Testing Activities

Specific framework or limitations in self-testing activities are unnecessary. Actually, all physical skills are self-testing. As speed, accuracy, form, or control is improved, the individual is participating in self-testing activities. There are, however, certain desirable physical activities which do not fit into the previous categories. Tumbling, gymnastics, apparatus work, and track and field, for example, require skills that are different from most other activities. Even though participants in these activities may be working as a team, the individual skill of the performer is the thing that counts. He initiates and controls his own action. There are no other variables—no bounce or spin on the ball, no pass from a teammate, no change in tempo, no complicating medium in which to move. The only goal to reach is a better performance than the last time—better speed, better distance, better form, better control.

Activities in this group are most closely allied to those in movement fundamentals. Self-testing activities, however, add such vital physical skills as climbing, hanging, swinging, inverted positions, body rolls with or without apparatus. With the possible exception of swimming, no other activities demand more arm and shoulder strength. Tumbling and stunts on parallel bars, horse, stall bars, and trampoline require balance, agility, strength, and endurance different from that required in other activities. Courage and maximum physical effort are part of the individual performance. Physical educators know the physiological results of doing a little bit more, going a little bit farther, moving a little bit faster with each trial. If this knowledge can be applied to those participating in self-testing activities—as in fact, all activities—the needs of physical skills for youth will be met.

CONCLUSION

The best assurance that youth will have continuing interest in and desire for physical recreation lies in his knowledge, his skill, and his satisfactions in physical activities. All activities in the secondary school physical education curriculum, and each skill these activities require, are designed to do two things: first, to develop each youth's motor ability to the highest possible point; and second, to develop his appreciation for movement and his desire to continue it. There is recreational potential in all physical skills. Realization of this potential depends upon a broad background of skill experiences so that each youth may choose the activity or activities which will bring him the greatest personal joy.

It is impossible in this chapter to do more than suggest categories of physical skills which should be included in an acceptable physical education curriculum for youth. A wealth of material in books, pamphlets, and articles, concentrating on specific skills in each of the categories, is available. This vast amount of material, in itself, is further proof that the focal point of physical education is physical skill.

Clearly defining the physical educator's position, Eleanor Metheny writes, "The basic concern of physical education is, and always has been, man and his capacity for voluntary movement."[8] It is through the use of voluntary muscles in movement that physical educators are able to make a distinctive and unique contribution to youth and to mankind.

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[8] Metheny, Eleanor. "Objectives for Physical Education: Movement, Motivation and Meaning." (Symposium) *Physical Educator* 16:83; October 1959.

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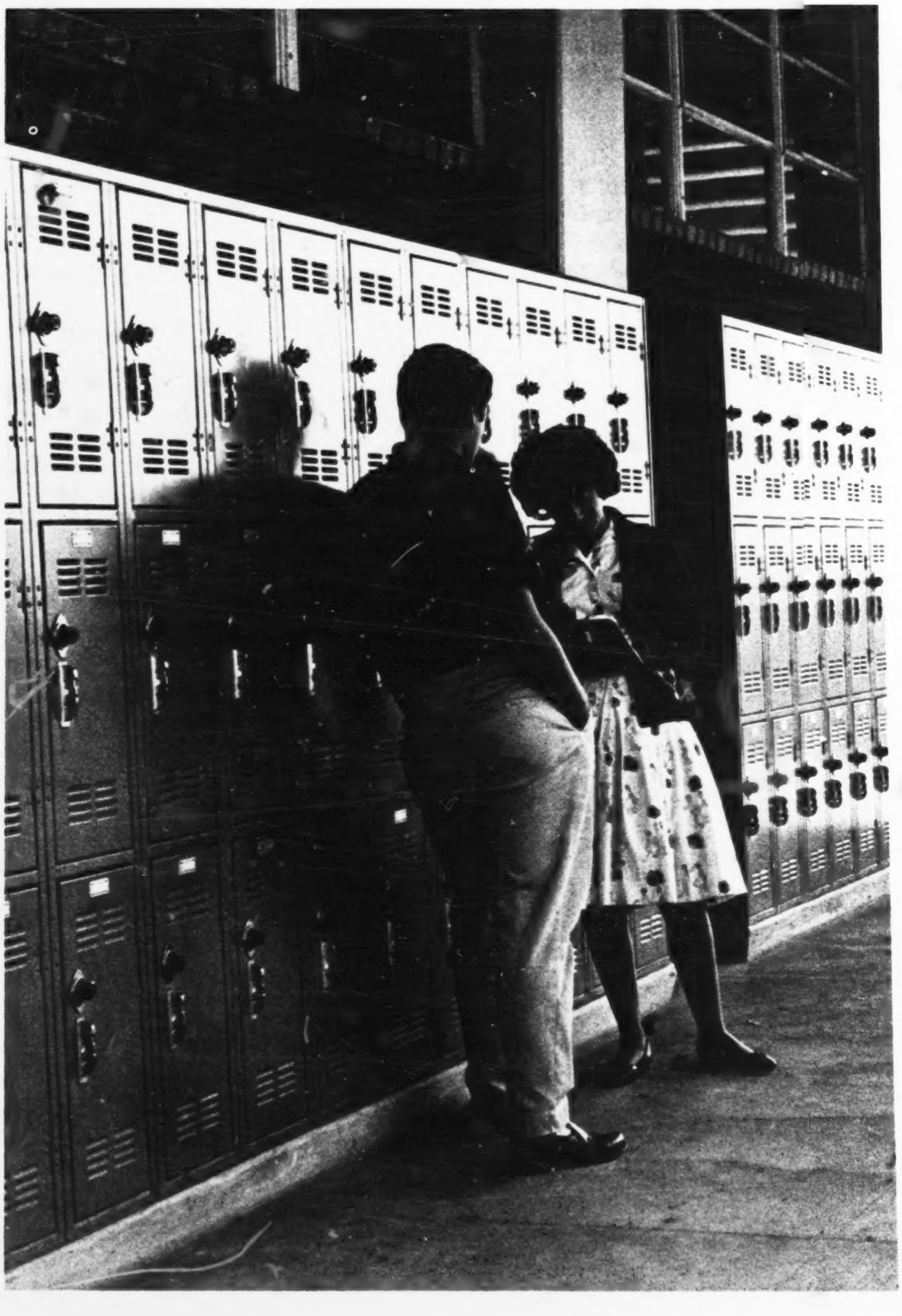

CHARLES C. COWELL

9

Social and Emotional Development

One of the astounding results of recent research is recognition of the interrelationships between physical, mental, emotional, and social aspects of developmental progress in youth and the interweaving of their deviations. Every aspect of development toward maturity is related to every other aspect. Motor skills play an important role as a vehicle for social development, for much social interaction centers around physical skill. Motor ability is highly related to the emotional features of a child's behavior. Participation in play and games gives youth many opportunities for experiencing the thrills, risks, failures, or successes that make for morale and emotional equilibrium. The pupil who is always the last one to reach the finish line, who always misses the ball, who is bowled over because he is not quite as strong as the rest, whose every contact with another contestant is a moment of defeat has little chance of wholesome social and emotional development.

True Purposes of Education

Human beings are indivisible. In every school task, intellectual, emotional, and volitional processes play a part. All clinicians, psychiatrists, and mental hygienists agree that emotional and social learnings are important and that real education is an emotional and social as well as an intellectual experience. They consider the true purposes of education to be to help people meet difficult situations with success, solve life's problems satisfactorily, grow to meet their needs, and therefore make wholesome adjustments to the persistent problems of living in a complex world. Mental hygiene is concerned primarily with the education of the emotions and with the development of well-adjusted personalities by intelligent training of children and youth and wise educational management of situations in which they are placed. Practically all clinicians agree that youth's failure to enter into normal social play activities is a symptom with valuable clinical significance.

Physical education teachers are not merely muscle developers (important as this is) and managers of mechanical reflexes; they are "development supervisors," guardians and developers of human personality. They are vitally concerned with the development of organic power (strong muscles, increased vitality, greater ability to resist fatigue) and neuromuscular skills, of course, but they are also interested in what happens to human *personality* as a result of these. As educators, they are interested in those significant changes in personality which constitute new insights, values, attitudes, outlooks, knowledges, and skills. They realize that the expressions of feelings and emotions, like ideas, are products of education and experience. One must be just as interested in what basketball does *to* Johnny as what Johnny does *with* the basketball, just as interested in what field hockey does *for* Mary as what Mary does *in* field hockey.

The main function of physical educators is to help the student learn particular content. They should always remember, however, that the student is also acquiring certain fringe benefits in the form of concomitant learnings related to some ultimate function of education, such as "to help students develop into competent citizens who understand the kind of world they live in and their relations to others."[1] For this, no better laboratories exist for diagnostic and remedial teaching than the playground, the gymnasium, the swimming pool, and the athletic field. If physical educators believe the *whole* child needs attention, they should recognize very early that mental health is just as important as physical health.

Importance of Satisfying Basic Personality Needs

The needs of human beings are manifold and varied. A need is a source of energy which can be transformed into expression but not destroyed. In looking at the behavior of people and trying to understand it, educators must assume that some source of energy or directional force within the individual causes the various manifestations of behavior they observe. They may think of this hypothetical source of energy as a need. They may think of the terms *needs, wants, motives, tensions, wishes,* and *desires* as vaguely synonymous.

The adolescent is highly energized, but inadequate outlets are provided for his energies; hence, personality and behavior problems result. The school as a cultural agency aids children and youth in learning to tolerate unpleasant feelings, to accept substitute objects for their gratifications, and to adopt new forms of behavior that fits into the culture pattern. This is a process of education and of socialization to which physical education and recreation activities make a major contribution.

Education is something more than disciplining the mind and producing mathematicians and scientists. It is a process of socialization in which the individual develops mental health or ill health, emotional stability or instability. Emotion is the result of events taking place in the cortex as well as in the lower centers; otherwise, desires could not be shaped and refined and needs satisfied in socially acceptable ways. If emotions could not be directed and shaped, political propaganda would be ineffective and advertising not very lucrative. The problem here is to take a cue from psychiatry and examine the potentialities for directing social and emotional development of adolescents by means of curricular activities.

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[1] Cantor, Nathaniel F. "Function and Focus in the Learning Process." *Journal of Educational Research* 45:226; November 1951.

Curricular experiences represent education from the point of view of the means employed to achieve objectives. Method refers to ways of organizing learning experiences to guide human growth and development. The nature of the "what" and "how," as expressed in terms of secondary school curriculum and method, determines the extent to which the curriculum meets the various needs of adolescents.

In classes are found the nonparticipants, the early and the late maturers, the oversized, the overweight, the undersized, the underweight, the timid and shy, the "show off," the hostile and antisocial, the fearful, the loafer, the rejected isolate, the overly introspective, and the self-depreciator. All these emotional disturbances and social maladjustments have causal factors. The physical well-being of youth is a primary factor in the quality of physical growth; emotional well-being is a primary factor in mental and personality development. There is a relation between the rate and pattern of a student's physical growth and the emotional climate, represented by psychological strains or satisfactions which determine the rate and pattern of his intellectual and personality growth. Factors which influence either type of growth will influence both. When educators really apply the whole-child philosophy to physical education, they recognize that students have personalities as well as bodies and that the concept of need-satisfaction is closely related to mental health.

A teacher may appraise his effectiveness in meeting the social and emotional needs of his students by asking himself whether they have opportunities for:

1. Participating socially in intramural sports, interest clubs, talent exhibitions
2. Developing close friendships with the same sex
3. Developing close friendships with the opposite sex
4. Appearing in a socially applauded, prestige-gaining role
5. Achieving the acceptance and approval of their peers
6. Belonging to desirable, particular groups to which loyalty may be given
7. Developing insight into their own personalities with help in objective appraisal of personality assets and liabilities

8. Making their own decisions and choices, achieving self-direction and independence
9. Being protected from the ravages of excessive and unequal competition
10. Understanding their growth cycle and the rapid physiological urges and changes taking place during adolescence
11. Minimizing fear of failure, punishment, criticism, and sarcasm by proper emotional climate in the gymnasium and pool and on the playing fields
12. Feeling accepted, being wanted, and belonging
13. Knowing the limits of individual freedom by generally agreed-upon requirements, such as certain codes of behavior or training rules in athletics
14. Broadening interests and appreciations by trying different activities
15. Accepting responsibility and leadership.

Good physical education is a biosocial phenomenon, concerned with both the biological and social adjustment of people. It recognizes that adjustment is the process by which people meet their needs and that learnings are retained most strongly when they have great significance to the ego. Students learn those things which are necessary for adjustment and, perhaps, little else.

Building a Philosophy of Life

One's philosophy represents the value system that he has evolved and personally cherishes, the means by which he interprets events and controls his actions. Values are the most important motivating factors of human life, for they represent the goals of behavior. They are the directive agencies which, in very significant ways, mold and condition human behavior. Attitudes and values, along with ideas, interests, and beliefs, represent major personality factors which guide and channel the student's perception and learning and aid him in making choices of means and ends.

Since most secondary schools teach no formal logic, ethics, or religion, one may rightfully ask, "Where do adolescents acquire the philosophy that determines their thinking and action?" Unfortunately, many young people have been left to seek consistency of values merely by trying to harmonize the mores of their respective homes, the conflicting theologies of the churches, and the rather inconsistent system of required and elective courses at school.

Physical education shares with other school areas, including individual and group guidance, the task of helping pupils find a desirable value orientation and providing situations for practicing behavior in harmony with it. Learning in physical education involves modifications of value patterns, since the values acquired influence behavior of great importance both to the student's own happiness and to the happiness of others.[2]

The essence of any physical education or recreation program is found in its values—its policies and preferences, its moral commitments, its loyalties, its standards of excellence, its measures of success, its teachings by which students should live. For instance, one very urgent issue in athletic programs today is the creation, validity, and survival of values related to codes of conduct in line with the supposed educational purposes of athletics. This calls for planned, experience-centered, evaluative learning. Sportsmanship must be used functionally, not merely verbalized.

A society is held together by a system of values around which its institutions have developed. Individual personality becomes integrated when conflict in personal values is kept at a minimum. When the teaching of the two parents is at variance in the home, when the teaching of parents is at variance with the precepts of the school, when social practices and approvals often seem to be opposed to moral codes, then emotional conflict results in a sense of uncertainty and insecurity that lead to unhappiness and maladjustment.

The implication here is that any school should have a common social and educational philosophy, and that each area—physical education, mathematics, and the others—should operate with a set of values common to the institution as well as with a few unique values of its own. What would happen to students if a school operated under a value system which really made the best principles of mental hygiene, operationally defined, the functional goal of every teacher? What improvements would be seen if values of citizenship or health were operationally defined so that educators could teach for them and have some basis for evaluating the degree to which they become incorporated into the respective value systems, or philosophies, of the students?

As a search for a value underlying all things, religion perhaps represents the most comprehensive of all the possible philosophies of life. The values of this country woven into the Constitution sprang from the Hebraic-Christian ethic and the democratic traditions of the Western World, nourished by frontier living conditions and individual initiative. Character represents some value organization within the individual which acts as a guarantor of stability. As values grow, the self-portrait becomes more clearly tied to them. The interests, ambitions, attitudes, hobbies, values, ideals, and tastes developed in physical education and elsewhere are the forms of mental organization which make important contributions to the character of students. As a result of experience, the individual comes to value certain objects and conditions which contribute to his well-being and give direction to his life.

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[2] Woodruff, A. D. "Personal Values and the Direction of Behavior." *School Review* 50:32-34; January 1942.

Good physical education nurtures important social and emotional trait disciplines. In terms of simple specifics dealing with moral values essential to democratic education, students learn through physical education activities:

1. To recognize that the group can achieve where the individual alone cannot
2. To share difficult undertakings with teammates because of a struggle together for a common goal
3. To take turns and share
4. To be loyal and not disappoint a buddy, the coach, the team, or the school
5. To realize that, in sports, there is no discrimination against talent; it is performance and conduct, not the color of skin or the social standing, that matter
6. To develop to the utmost their individual potentialities, and yet to realize that each is a member of society and has obligations to others
7. To maintain the moral significance of play by adhering to rules, codes, and standards.

Democracy has its roots in the play experiences of children and youth. Developing the moral values which comprise democracy is an important function of physical education. The primary social task of physical educators is to make these principles clear, to show how they are used in social thought and action, and to provide experience in using them in the gymnasium, in the pool, and on the athletic field. A student who is truly educated responds with a different set of values. Physical education is obligated to contribute to this distinguishing criterion of an educated person, and adolescence is a proving ground for all the preceding training in the development of those value judgments that will make the difference.

The strength of this country is the result of a social philosophy which fosters diversity among individuals. Individual thinking is encouraged. No single pattern of officially approved beliefs and values is set up for others to accept. Development of both individual and group responsibility is encouraged. Men are not classified either as "leaders who always lead" or as "followers who always follow." People are united by developing the realization that all profit by the individual talents of each other. The differences that build interdependence also enrich living.

Evaluating Individual Differences

To say that individuals differ is to state an axiom. All biological and psychological characteristics in the population—height, weight, the ability to think in abstractions—tend to distribute themselves in the form of a normal distribution curve. This means that most cases tend to be near the average and that, as one goes above or below the average, the number of cases decrease until, at some distance from the average, very few cases, if any, are found. In any given ninth grade, some of the students are boys, others are girls; some are heavy, some light; some are strong and some are weak; some are skilled and some are unskilled; some are agile and others are lethargic; some are physiologically mature, others are still pubescent. Even emotional and personality characteristics seem to approach a more or less normal distribution. Frequently, the boy or girl who is poor in one achievement excels in another; however, with a narrow range of activities, neither pupil nor teacher will discover this.

Since high school students inevitably differ, educators must not expect the same performance of all. Dr. Gallagher[3] points out that the menarche normally takes place between the ages of 10 and 17. Since interests vary with levels of development, varied experiences are needed. What appeals to one may be rejected by another. Girls who mature early are generally physically stronger. A boy's strength usually doubles between the ages of 13 and 17. At each chronological age level, the strongest is usually about three times as strong as the weakest. It is obvious that differences in maturational level must be considered in order to construct a satisfactory physical education program. To be effective, the teacher must try to combine the best of group instructional techniques with careful attention to individual needs.

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[3] See Chapter 1, page 10.

Guidance in Physical Education

Guidance is based on an understanding of the ways in which individuals differ. It means helping students establish goals and improve their plans for reaching those goals by understanding their strengths and weaknesses (individual differences) and how best to develop goal resources (means of reaching the goal). This involves application of the principles of self-understanding, self-determination, and self-direction.

Areas which can now be called *educational guidance, vocational guidance, health guidance,* and *personality guidance* indicate the scope of the guidance field. In most schools, guidance supervisors give major attention to the first two areas and treat the others rather superficially, despite the fact that educational and vocational success is positively related to high achievement in the other two areas.

In health and personality guidance, at least, close cooperation between the guidance supervisor and physical education teachers should be encouraged. Actually, the most fundamental evaluation instrument in the health guidance area is an adequate health examination. After this come skill, muscular strength, endurance, cardiovascular efficiency or general physical fitness. In personality guidance, degrees of leadership, sports participation, social adjustment, and other valuable guidance data are measurable and can be shown on individual profile charts, as can the physical-status items. Because of the informality of student-teacher relationships and the fact that physical education teachers often have continuous class contacts with the same students for two or more years, data resulting from objective status appraisal are available for the guidance of students.

Teamwork between the guidance supervisor and physical education teachers has been conspicuous by its absence; the latter have seldom been able to supply objective data, and the former has not always comprehended the importance of such data—when it was provided—in understanding the personality structure of a particular boy or girl.

Physical education data of value in guidance should be an integral part of a measurement and evaluation program which deals with appraising and recording student progress in physical education. Data appearing on a profile chart has marked advantages for showing a student's standing on different tests or parts of a single test. The general picture can be seen at a

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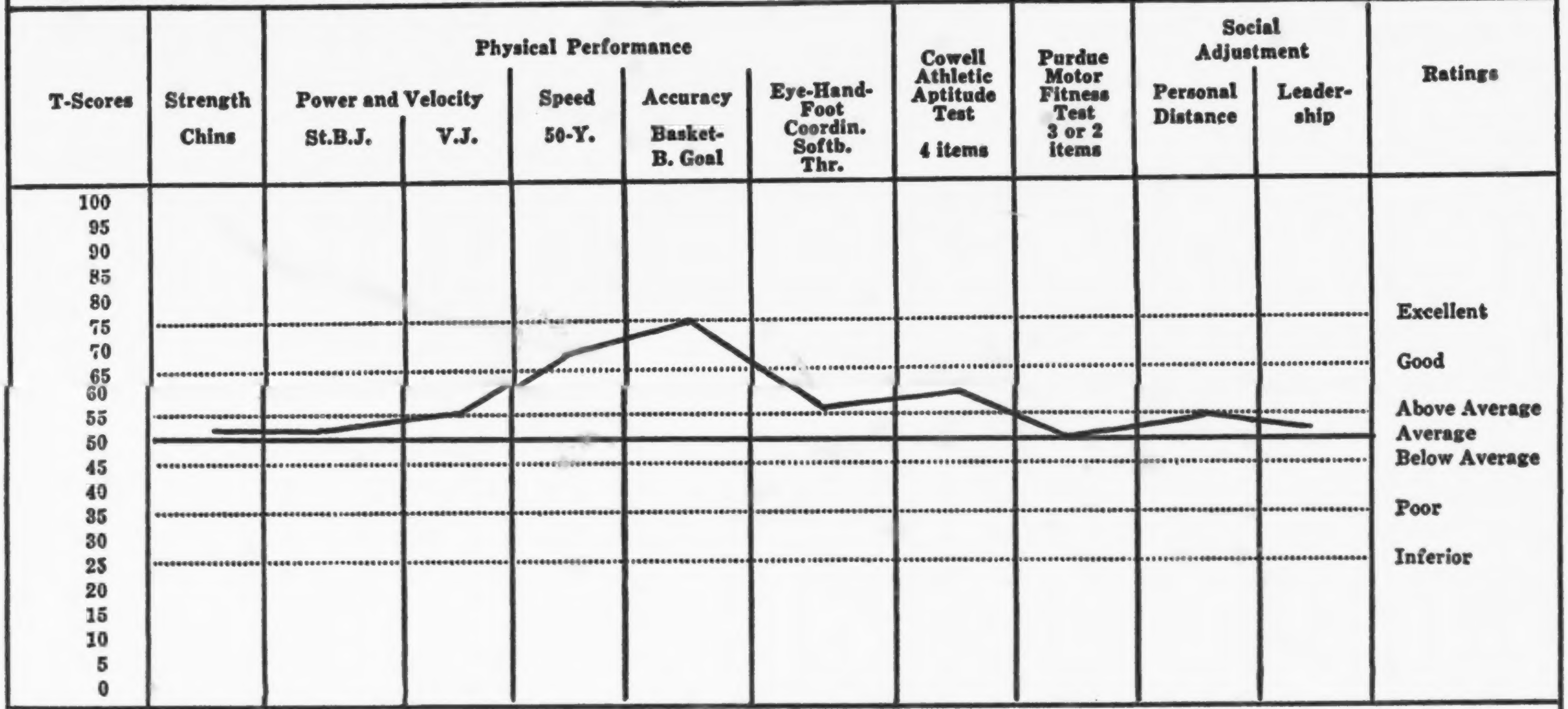
Physical Education Profile for Tom James



REMARKS: Chronological age - 145 mos. Physiological age - 157 mos. Tom is an "early developer" and physically mature for his age. He is well-balanced in both physical and social development and is cheerful and dynamic.

glance. It is easier to note the particular strengths and weaknesses, and the statistical amateur finds the results much easier to understand. A sample of such a profile chart for a preadolescent boy in a Saturday morning "fitness" program at Purdue is reproduced on the opposite page.

Note that the profile shows particular strengths and weaknesses in physical performance. The scores on the two test batteries (athletic aptitude and motor fitness) represent composite scores on a few items which have been found, by the process of multiple correlation, to be as good for prediction as the sum total of 15 items. The sociometric personal distance score indicates the general acceptance by the boy's group peers, and his leadership score gives the results of the use of the Partridge Leadership Ballot.

The norm by which performance was judged was based on the sample participating after the sample was divided into three comparable groups of similar degree of maturity and body structure by the McCloy classification formula (20A + 6H + W). T scales, which made all scores comparable, were made for each profile item for each of the three categories. It can be seen that this record is helpful in guidance because it is based on objective evidence and reliable descriptions of behavior, shows trends of abilities and interests, provides a means of recording measurements in comparable and meaningful terms, shows the interrelationships between separate items, has high "glance value" permitting rapid generalizations regarding trends in development, and is administratively convenient and quickly reproducible by photostatic or similar process.

Although the profile chart illustrated was used for boys, similar types may be developed for girls. Classification schemes for girls, however, are not as statistically valid because of greater physical variations. For girls, classification by such instrument as the Scott Motor Ability Test is desirable.

From many sources, teachers and parents must find ideas and principles that will enable them to help youth in the none-too-easy task of growing up to be healthy and effective in modern society. Society and its institutions, including the school, need reorganization that will incorporate adolescents into society in a more vital way by somehow making possible more immediate, useful, and responsible participation in the world today. The growing rate of delinquency, mental and emotional disturbance, and social maladjustment could, no doubt, be reversed as a result of social and institutional change that creates a more vital place for youth. This is possible and must be achieved within the framework of democracy. With the support of parents and educational administrators, physical educators should share the burden of proving this with a revitalized philosophy and program.

Learning To Live and Work Together

Games, with their internally consistent sets of rules and their prescribed penalties, form rather early a basic value system which underlies judgment of what is good or bad in citizenship—nationally and internationally. Centuries ago, Plato stated, "The plays of children have the mightiest influence on the maintenance of laws—from the first years of childhood their plays ought to be subject to laws, for if they are arbitrary and lawless, how can children ever become virtuous men, abiding by law?"

Since physical education is a biosocial phenomenon, teachers deal in applied biology and in applied sociology. They seek to discover the conditions which will progressively change the individual effectiveness and social behavior of youth. In physical education, there is a splendid chance to observe this progression in the process of socialization.

At first, child play is of a solitary nature. Each child plays by himself or treats other children like inanimate objects. At about two years of age, he begins to engage in semisolitary play, which takes the form of parallel activities. Children play side by side but not necessarily together. In the nursery school, play becomes cooperative to a small degree, and two or three children will use their blocks to build a joint project. This group-structuring continues to increase with age. Five-year-old children are imitating objects and people and are acting out assumed roles. A little later, play takes the form of low organized group games of simple nature, such as "tag" and "follow the leader." In early adolescence, interest develops in more highly organized team games, along with rituals, symbols, and badges of various types of organizations, with definite rules to hold members together. This stage is the most significant of all periods, for it provides the major basis of cooperative participation in adult community life.

In adolescence, group thinking and feeling are prominent in highly organized team games. Now the role of the "generalized other," emphasized by the late George H. Mead, becomes a necessity for sound social adjustment. For example, in order to play any position successfully on a baseball team, each player must understand the role of all eight other players. Each must adjust to all other teammates and consider himself in terms of the organized group—the team. Hence, he learns to control his behavior and submerge his own ego in conformity with the demands of an integrated social system.

Sports and game situations in general should contribute favorably to group living because they:

1. Supply youth with a sense of purpose and direction
2. Offer an appropriate opportunity for self-testing which seems important to the development of youth
3. Give a basis for judging the behavior of individuals—oneself and others
4. Provide experiences in recognizing that the achievement of goals depends on using the contribution of each member
5. Give the group a common orientation and a basis for unified action
6. Help each team member realize that he needs to be in a position to make his best contribution by showing superiority in some particular skill
7. Help fix a sense of right and wrong, fair and foul, moral and immoral
8. Contribute integrating factors in the culture by developing common interests, loyalties, and enthusiasms
9. Foster understanding across class lines and increase the intimacy of association with different socioeconomic classes
10. Encourage upward social mobility—the transition of an individual from one social stratum to a higher one—because of the social value placed on athletic success and its accompanying personality variables in the American culture.

Developing Student Leadership

Summary of research on leadership shows that attributes such as height, athletic ability, vitality, social adaptability, energy, and health are associated with leadership. Sociometric devices now measure the patterned relationships between members of groups and determine the currents of influence that tend to decrease or increase the personal distance between individual members of any group. These indicate that it does not take long for students to know each other's personality well enough to place one another on a preferential scale of acceptance with considerable accuracy.

The democratic student leader is one who senses the prevalent needs of the group and knows how best to meet these needs. He has attributes similar to the characteristics of the successful teacher: kindly consideration of others, use and recognition of praise, fairness, a sense of humor, patience, and similar ways of contributing to the basic personality needs of pupils indicated earlier in this chapter. These attributes inspire confidence in others and influence them to think and act in a desired direction, for a leader is one who leads.

Leadership, as an aspect of social effectiveness, can be acquired by experience; therefore, it can be learned in the gymnasium, in the camp, and on the athletic field offering stimulating situations with potentialities for leadership training. Furthermore, these places and situations provide daily performance tests in social effectiveness and leadership.

Leadership is the most important single factor in the success of the physical education program. During the first quarter of the present century, much attention was devoted to training student leadership by means of the Leaders Corps. This fine idea was introduced into the schools from the Young Men's Christian Association where early leaders got their training, first as junior leaders and later as senior leaders. Unfortunately, as programs became less formal, student leadership became weaker until today it is virtually nonexistent for boys in many schools. Because of the Girls Athletic Association (GAA), the leadership in girls programs has not suffered to this extent.

To become leaders, students must be helped to develop those personality attributes of which leadership is a function and, at the same time, must be given progressively more opportunity for leadership experience.

Coeducational Activity

Providing opportunities for heterosexual social adjustments and mutual understanding is an important developmental task of physical education and adolescence, and a vital part of preparation for home and family life.

Coeducational planning of social-recreational activities, performing committee work, acting as host or hostess, and operating noon-hour mixers frequently fall to students under the guidance of physical education teachers. Noon-hour programs in mixed table tennis, volleyball, archery, shuffleboard, dart baseball, deck tennis, box hockey, and social dancing are normally welcomed. Outside activities such as stunt nights, picnics, splash parties, square dancing, skating parties, and scavenger and treasure hunts become part of the school-centered recreation program related to physical education and contribute to the goals of coeducation.

Coeducational intramurals in volleyball, table tennis, badminton, bowling, archery, box hockey, golf, skating, folk dancing, horseshoes, softball, and captain ball may be encouraged. Furthermore, direct instruction in mixed physical education classes in some of these activities will aid in the achievement of the educational values inherent in such procedures.

In some schools, boys and girls are taught similar skills in separate classes for a specified number of periods and then are brought together for the coeducational phase which becomes the culminating activity for whatever unit is being taught. Frequently, teams of boys and girls are formed, with instruction continuing as the tournament is being conducted. Culminating activities for the units may be round-robin tournaments in volleyball, mixed doubles in tennis, and planned events in swimming. In all cases, students should play an important role in planning and directing the tournaments.

IN SUMMARY

Physical education is interested not only in the development of organic power and motor skills but also in their effects upon the individual personality.

With proper professional leadership, social and emotional learnings acquired in physical education can be of paramount importance to individual adolescents and to society.

The function of physical education teachers is to be sensitive to the needs of adolescents—especially those needs best met in physical education situations: physical well-being, companionship, belonging, recognition, adjustment to adolescent physical changes and to heterosexuality.

Value judgments—philosophies of life—are products of learning. Physical education shares with other school areas, including individual and group guidance, the tasks of helping adolescents find a desirable value orientation and providing opportunities for practicing behavior in harmony with it.

Physical education teachers should seriously apply the principles of individual differences in helping adolescents understand that, in the growth process, all boys and girls do not mature at the same time and that "normality" includes a considerable range of individual differences.

Personality guidance, as an area of general school guidance, is a function of the close cooperation of physical education teachers and the guidance supervisor, based on objective data concerning human behavior in the gymnasium and on the playing fields.

Physical education is a biosocial phenomenon; it socializes youth by inducing them to work together for common ends, helping mutual understanding, establishing rights and duties, and giving them a sense of group membership and group unity.

Physical education experiences should contribute to the realization of democratic ideals in the daily life of students.

Students acquire social and emotional learning by identification with and imitation of teachers who are significant persons in their lives. The fact that physical education teachers often serve as models for those students who are emotionally drawn to them stresses the importance of the teacher as a potentially powerful determinant of behavior.

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JOSEPHINE CHRISTALDI

10

Adapted Physical Education

Peals of laughter and enthusiastic shouts from the gymnasium indicated that a lively contest was in progress. The joyous sounds were an invitation to step through the doorway and join in the excitement. One glance at the teams playing bat ball told the story. The "wheel chair" team was competing against the "crutch team." When the "wheel chair" team was at bat, the pitcher bounced the light ball to the batter, who hit it with his fist. When the "crutch team" was at bat, the teacher placed the ball on a stand that was adjusted to the proper height, and the batter hit the ball with a crutch. Of course, they "ran" the bases—and in surprisingly fast time, too.

The happiness that emanated from this gymnasium was sufficient proof of the need for such a program for all young people with physical disabilities. If every school administrator, physician, parent, and teacher of physical education were privileged to witness such an exhibit of tenacity and sheer enjoyment, then the handicapped would not be deprived of physical education in any school district.

This class activity took place, as similar ones do every day, in a school having pupils of all ages with severe disabilities. It is a public school, in a large city, with a gymnasium and a swimming pool that are staffed with qualified teachers and therapists. The school was built to meet the physical, social, mental, and emotional needs of the pupils who attend. The boys and girls have permanent handicaps, but they are learning to adjust to them and to obtain the most from life. Fortunately, these young people are receiving the best that education has to offer. This actual story shows that even severely physically handicapped pupils can enjoy their physical education classes, and it certainly proves that regular physical education activities can be modified to meet the needs of pupils with various lesser degrees of physical handicaps and disadvantages.

PHYSICAL EDUCATION FOR PHYSICALLY HANDICAPPED YOUTH

Too frequently, parents have overprotected their handicapped children and, in severe cases, have almost isolated them from the activities of others. In every community live a number of handicapped boys and girls of secondary school age. In order to cope with their problems, the school should include a broad program of health and special educational services. The school health-services personnel, teachers of physical and health education, and parents should form a team that works together closely.

It is normal for the adolescent to want to expand his social circle, join clubs, try out for teams, and generally increase and vary his activities. Physically handicapped youth can make these adjustments only slowly, and they often become despondent because they are outdistanced by eager classmates. A good program of physical education will be geared to meet the individual needs and physical capacities of every student so that the physical, emotional, and social adjustments can be made as easily as possible. A daily period of varied physical education activities, including some competitive sports, will help greatly to satisfy these needs. Clearly, there is much satisfaction derived from learning game skills and handling the body effectively. As important as physical education is for normal boys and girls, it is even more important for handicapped individuals because they have greater need for expert instruction.

In this space age when education is being streamlined to offer "opportunities for all," what are the schools offering the handicapped? Are they successfully educating the *whole* child, or are they neglecting the physical aspects? The program in physical education for those with physical disabilities too often falls into one or more of these indefensible patterns: The students are assigned to do clerical work for teachers. They are designated as locker aides and spend their so-called activity periods in a gloomy and often poorly ventilated locker room. They are assigned to study hall. They are required to observe and then to write a report on the class activities. None of these patterns provides opportunity for participation.

Special Objectives of Adapted Physical Education

Adapted physical education should provide a program, based on thorough, periodical medical examinations, of carefully selected activities for each student who is unable, because of some physical disability, to participate in part or all of the regular program. These activities should not only develop and maintain basic muscle tone; they should encourage and prepare for out-of-school participation. The following should be included among the objectives accepted by administrators and teachers for the adapted physical education program:

1. To provide an individualized physical education program to meet the immediate needs of students with temporary and permanent disabilities
2. To provide opportunities for those with permanent disabilities to learn skills that are suitable for use during postschool years
3. To encourage the students to engage in group activities that will enable them to make better social and emotional adjustments
4. To return those with relatively mild physical defects to regular physical education as rapidly as possible
5. To assist pupils in developing healthful and intelligent attitudes toward their handicaps.

Conduct of Adapted Physical Education Program

Every secondary school pupil should be required to participate in as comprehensive a physical education program as possible. There is no valid reason for disabled boys and girls, bursting with enthusiasm and energy, to be forced to sit on the side lines and watch their more fortunate classmates engage in vigorous, health-giving, pleasurable activities.

For a detailed description of an eminently successful program of adapted physical education which has been in operation on the secondary school level for a number of years, the reader may consult the guide approved by the Board of Education of the Philadelphia Public Schools. Highlights of this program, including essentials of any good adapted physical education program, are summarized in the following paragraphs.

For participation in a modified program, disabled pupils may be assigned to selected activities in regular classes, to special individual or group programs within regular classes, or to special separately-organized classes. The best plan will depend upon local conditions, the total number of handicapped pupils, and the particular types of handicaps which the pupils have. The pupil whose restriction of activity is slight can best be placed in a regular class. When the total number of handicapped cases of all kinds in a school is small, it is usually advisable to assign these pupils to regular classes. However, they must be assured of adequate supervision.

Whenever there are a number of pupils with more than minor handicaps in a school, it is highly desirable to arrange special classes. A teacher with specific qualifications for conducting adapted physical education should be assigned to these classes. Assignments to adapted physical education classes will have to be considered in preparing the master schedule. In scheduling the special classes, a school may wish to consider the use of zero periods, alternate lunch periods, club periods, after-school periods, or other possibilities.

The school doctor should process all requests for restriction of physical activities. After examining and talking with the pupil, he should inform the teacher of the activities advisable for the pupil. While awaiting such information from the school doctor, the teacher should eliminate the pupil from participation in any physical education activity. During this brief period, the pupil may be assigned to related reading or nonvigorous clerical or assisting duties.

Physical education activities can be modified for physically handicapped pupils in any of the following ways:

1. By decreasing the duration of the activity
2. By decreasing the tempo of participation
3. By omitting certain movements or the use of certain body parts
4. By substituting more appropriate activities
5. By eliminating certain activities completely.

The specific modifications appropriate for a given pupil will depend upon the nature and degree of his individual handicap and must conform to the detailed recommendations of the examining physician and the instructions forwarded to the teacher by the school doctor. The program for a single pupil may include some modifications of all five types listed above.

Decreasing the duration of the activity will frequently constitute sufficient modification. When body-conditioning exercises are being performed, the pupil can be instructed to repeat exercises a certain number of times only. In a softball game, the distance between bases can be shortened. The length of quarters in a basketball game can be reduced. The number of required points for a game in volleyball may be decreased. A pupil may perform a single forward roll and then rest before repeating, instead of doing successive rolls. The number of successive throws, catches, bounces, or other movements by an individual can be limited as necessary.

In other cases, it will be necessary to decrease the tempo of participation. The pupil may need to repeat body-conditioning exercises more slowly than the rest of the class. Dancing may be restricted to slow dances such as the minuet and the tango. The pupil whose sustained running must be limited may play goalie in a soccer game. The tempo of a volleyball game may be decreased by reducing the size of the court or increasing the number of players on a team. Increasing the number of required rest periods in any game will result in a slower tempo.

Pupils with certain types of physical handicaps will sometimes find it necessary to omit certain movements or the use of certain body parts. A pupil with a leg defect may be limited to performance of only the arm movements of the "jumping jack" exercise.

One with a foot defect may perform the arm movements of an Indian dance while remaining in a sitting position. A pupil wearing leg braces may receive a thrown football while standing instead of running. A pupil with only one arm may play tennis, although he will have to omit the standard form of the service.

In many cases, it will be wise to substitute variations of an activity, or more appropriate activities. If push-ups in a front support-lying position are too strenuous, push-ups in a kneeling position or against a wall in a standing position may be substituted. A pupil with a major disability of the feet and lower legs may do exercises in the hang on the rings instead of exercises with the horse or mats. In throwing events, a short accuracy throw may replace a throw for distance. Instead of competing for height in the high jump, a pupil may jump for form only over a low height. Game rules may be modified, permitting the softball batter, for example, to bunt only.

In any adapted program, there will be some activities which must be eliminated completely for certain pupils. A pupil with a chronic or permanent knee injury should eliminate broad jumps and dismounts from the high horizontal bar. One with an arm or shoulder defect may be excused from all exercises in a support-lying position. A pupil with leg braces may need to eliminate all dance activities. It may be necessary to excuse one who is susceptible to dizziness from all inverted positions.

Almost all popular physical education activities can be modified for use in the adapted program. Sports and games provide important and satisfying educational experience for pupils who are restricted to moderate activity. In addition to modifying factors related to intensity, duration, and tempo, sports call for extended precautions because of their competitive nature. Usually, the rules must be changed to ensure moderation. Revisions will frequently include some combination of the following adjustments: reduction in size of playing area, limitation of one player's sustained activity, limitation of an individual's over-all amount of activity, elimination of undesirable game elements by modification or substitution.

In apparatus activities and other gymnastics, emphasis should be placed on selection of simple exercises of short duration which involve only a moderate expenditure of energy. Dance activities are suitable if the less vigorous types are selected, the tempo adjusted, and the duration of participation limited. Swimming activities, very valuable and satisfying to many pupils with physical handicaps, frequently require less modification than most activities because immersion in water minimizes the problem of body support.

In the adapted program, additional emphasis can be placed on some of the less vigorous activities such as shuffleboard, table tennis, suction darts, quoits, and golf putting. For extreme cases, some of these may be done in a sitting position. Frequent, intermittent, short periods of rest may be indicated with any activity.

INDIVIDUAL REMEDIAL PHYSICAL EDUCATION

Individual remedial physical education is another specialized area of the general physical education program. It is concerned with the improvement or correction of orthopedic defects. In the past, this phase of the program has often been neglected. Far too many educators believed that children would naturally outgrow their deviations and reach maturity as well-aligned individuals with good posture and body mechanics. It is now known from observation and from working with secondary school youth that this is not the case. In a high percentage of cases, functional posture deviations become structural after approximately 16 years of age.

The most rapid period of organic growth and physical development takes place during the early adolescent years. It is during this time that the most pronounced postural deviations occur. The case of a functional scoliosis that grows progressively worse and develops into a structural scoliosis presents a serious health and aesthetic problem. Because students spend so much of their time in school, it becomes the school's responsibility, in large measure, to detect deviations while they are still only functional. This necessitates periodic medical examinations, with appropriate follow-up of the defects that are discovered. The follow-up in this case is, first, removal of the cause or causes and, second, provision of a remedial physical education program taught by a specially trained teacher.

Objectives of Remedial Physical Education

The objectives of remedial physical education may be stated as follows:

1. To remove the cause of the deviation
2. To improve the over-all bodily alignment

3. To improve or correct posture and foot deviations through the use of carefully selected exercises for each individual
4. To motivate students to want to continue practicing good posture and body mechanics until they become a habit
5. To motivate pupils to practice good health habits.

Structural and functional defects that should be corrected, improved, or arrested are:

1. Anteroposterior deviations: forward head, round shoulders, kyphosis, lordosis, and any combination of these
2. Lateral deviation: scoliosis
3. Deviations in foot and leg structure and function
4. Nonorthopedic defect: dysmenorrhea.

Conduct of Individual Remedial Program

An individual remedial physical education program cannot function effectively without medical cooperation. The doctor examines the pupils and provides referral forms to the remedial teacher. If a nurse is available, she can be made responsible for scheduling the doctor's appointments with the pupil and teacher and for assisting in the follow-up cases which need additional attention by parents and orthopedic surgeons. The services of an orthopedic consultant in this field are highly desirable.

Remedial physical education is often put on a voluntary basis because it is given in addition to the regular physical education classes. Usually, the written consent of a parent should be obtained for enrollment of the student in this type of physical education.

Individual remedial physical education cannot be taught effectively during regular physical education classes because highly individualized instruction is required. Rarely are the deviations in two or more students exactly the same. There are varying degrees of deviations and of individual differences among the pupils. Specific remedial exercises must be selected for the individual, not for the group as a whole. Furthermore, the remedial teacher must study each case and, with the assistance of the physician, determine the cause or causes of the various deviations. Muscle tests to determine the length and strength of particular muscle groups must be administered and their results recorded if suitable selection of exercises is to be made. To this end, the teacher must be trained in the correct testing techniques.

Additional reasons for the separation of orthopedic cases from the regular physical education students are these: Effective individualized instruction can be given only in small classes. Only a teacher who has had specialized training in this area should instruct the classes. Students must work according to their own speed and physical capacities. Precise written records must be kept for each orthopedic student.

The classes should be kept small, with approximately ten assigned for each period. Ideally, most students should report for a daily period of remedial physical education. Much improvement can be attained with fewer periods, but no one should be enrolled who cannot attend classes at least two periods per week. Much repetition and progression are essential for correction or improvement. Obviously, the time will arrive when remedial periods can be reduced for many students from five to two per week.

In communities really interested in posture education, special remedial gymnasiums are included in the school building plans when finances and space permit. However, attractive remedial rooms that meet the regular school health requirements can be and often are converted from ordinary classrooms and other areas of unused space.

Much of the basic remedial equipment and apparatus can be made in the school shops by carpenters employed by the board of education, and many times by the remedial teachers themselves. Basic equipment essential to the remedial gymnasium includes a full-length triple posture mirror, two or three sections of stall bars, several benches, stools and chairs, a flat wall or posture board, a horizontal ladder, a set of adjustable rings, a plinth or table, a posture grid with a plumb bob suspended from it, a set of wall pulleys, a pedograph, a podiascope, several wands, inexpensive resistive equipment made with strong springs, a bulletin board, several straps for ensuring localization of exercises, and mats. The teacher with initiative and imagination can easily devise the simple equipment needed for the basic exercises. Although it is actually unnecessary to have much equipment, it is desirable to have a variety because it diversifies the program and minimizes the boredom which is likely to result from much repetition of identical activity.

The diagnosis made by the doctor and the tests administered by the teacher are the determining factors in the selection of remedial activities for each student. The prescribed exercises are best recorded on individual exercise cards and placed alphabetically in a file. The exercises must be changed according to the current needs of the students, and a record of all changes should be kept. If an exercise is too easy, it should be replaced by a more vigorous one; likewise, if the exercise is too difficult, a milder one or a milder form should be substituted. Execution of the exercises by the students demands constant observation and correction.

Remedial physical education can become boring unless the teacher is alert enough to keep it stimulating. It is not difficult to motivate the pupils in a number of ways. Muscle tests serve as one source of motivation. Test results, if recorded on a chart and posted, stimulate the pupil to want to better his past performance. Purposeful, inexpensive equipment also provides a great measure of interest. Strong resistive springs to facilitate the strengthening of particular muscle groups, visible scales to measure achievement immediately, a light or buzzer attached to equipment to serve immediate notice to the student of good or poor position, and well-placed mirrors are only some of the means for encouraging pupils to exert more effort.

In addition to motivating devices, it should be emphasized that the use of straps is important for "fixing" body parts to ensure localization of the exercise. The program can be made as interesting as is the ability of the teacher to imagine and devise equipment.

Evaluating the Remedial Program

Evaluation, obviously, is an important part of the remedial program. This should be an on-going process by the physician, the teacher, the parents, and the student himself. Periodic written records of the student's progress or lack of it will give an accurate picture of the value he derives from his activities. Periodic posture photographs, although not portraying the situation accurately, are valuable references for evaluating the effects of the exercises. Progress charts usually can be counted on to challenge students to better their own records. Periodic evaluation by the school physician, with advice by the remedial teacher, is an important gauge in determining the release or continuance of the student in the program. Parents can render valuable assistance in evaluation by presenting written reports on the work done at home by the student. It may be helpful to suggest that the school report mark can be determined readily on the bases of these evaluations, along with observations of actual accomplishment during class periods.

QUALIFIED TEACHERS ARE NEEDED

Adapted and remedial physical education is an essential part of a complete physical education program. However, these two areas are often omitted from the total program because physical educators feel they have received inadequate preparation for teaching them. Qualified teachers are urgently needed in these areas of physical education. To meet the need, more emphasis must be focused on adapted physical education in the teacher education institutions. Many physical educators have had no training or experiences in the education of the handicapped. There is a need for student teachers to devote a portion of their time to this field. Only through observing active handicapped students at play can teachers realize that these boys and girls are not fragile beings to be protected by being kept on the side lines. It is only through actual work with handicapped pupils that teachers can gain the knowledge and insight to deal with them.

Inservice education in these fields is also a vital need. There are few colleges and universities conducting courses in these subjects during late afternoons, evenings, Saturdays, and summers, when most teachers can take advantage of them. However, a well-qualified teacher or supervisor can readily conduct an inservice course for those who are interested in broadening their knowledge and skills.

Qualified supervision plays an important part in the on-the-job training of teachers of adapted and remedial physical education. Probably nothing is more valuable and important to the new teacher than the on-going guidance provided by a supervisor. The aim of supervision is the improvement of instruction; all teachers need this assistance.

It is usually profitable for the teachers who need help to observe in schools where there are strong teachers and programs. Further, it is highly beneficial for all remedial teachers in a community or area to meet as a group to discuss improvements in the program, to observe demonstrations on newly approved equipment, to discuss mutual problems, to present committee reports, and to exchange workable ideas. Another valuable technique is to have the supervisor encourage the establishment of teacher committees that will function for the expansion and improvement of the program. An official written program is also advisable to provide convenient reference material on a community-wide basis and to avoid the inclusion of unapproved material. Finally, teachers in the program should be encouraged to use imagination and initiative in devising new equipment and exercises, to be used, however, only after approval by the city director of physical education and the head of the school medical services.

Much remains to be done throughout the country in these areas of physical education. Physically handicapped youth have been neglected too long. Educators must put forth more thought and greater effort to provide suitable opportunities in physical education. The handicapped must be given every opportunity to experience the happiness that accompanies success. Every student is entitled to the best that education has to offer. Certainly the handicapped are entitled to equal opportunity with the others. They must be guided to live as normally as their disabilities permit.

The goal of every community should be to organize a program of adapted and remedial physical education in every school. The door is wide open to render greatly needed service.

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LEONARD A. LARSON

11

Planning for Physical Fitness in the Years Ahead

Equipping students to plan and pursue intelligently their own physical fitness in postschool years is an important function of secondary schools because a large percentage of students terminate their formal education with high school. To develop and maintain fitness, one needs scientific information as well as attitudes and values which lead toward a determination to live healthfully. To provide basic information with many implications for secondary school physical education, this chapter presents scientific information about life from conception to death, with sections devoted to the early years and to aging. It presents a pioneering statement of standards for adult health and fitness. It makes some specific suggestions for physical education teachers.

Life: Conception to Death

Life begins with the fusing of the sperm and egg into a single cell. Although microscopic, the cell contains the potentials for growth and development into a complex, complete human being. It is nourished and protected by the mother and given time to form into a structure with all functions needed for life. As soon as the organism is able to sustain itself, birth occurs. The child must then secure its own oxygen, digest its own food, and set its own pattern for life. Whether it is a pattern for good health or destruction is, to a large extent, determined by the choices made. Physical structure and functions are influenced more significantly during the early years than at any other period in life. Damage to the human organism during the early growing period probably can never be fully corrected. The individual's health destiny is determined to a significant degree quite early in life.

The infant grows into childhood and adolescence—the period for the development of potentials. The body, the mind, the emotions, and the individual as a social being gradually develop. The rate varies with each individual. The independent traits, qualities, and abilities also vary in development and capacity. Because of the unity of structure and function in good health, such variation is of major concern. The practices of the child in the physical aspects of living—diet, rest, exercise, relaxation, protection from unfavorable elements—will be reflected in his development. Similarly, the practices of the mind, emotions, and the social interrelationships will determine the nature of development and organic unity.

Barring disease and its damaging effects, evidence supports the premise that the health of the individual as a vigorous physical being, with wholesome attitudes and desirable skills, can be developed during this period by design. Accomplishment of this potential can result only when scientific discoveries are known and practiced in the home, the school, and the community—and, more importantly, when they are accepted by the child as a desirable and happy way of life.

When the individual reaches maturity, the growth potential is practically reached and will remain basically the same throughout life. The forces, conditions, and practices which have stimulated and nourished growth will no longer have any significant bearing. The organism will still be influenced, favorably or unfavorably, but not in the same way. In characteristics and abilities, the individual is a different person at maturity. The mind is more efficient and skillful; the body has more strength, coordination, and agility; the emotions are conditioned and more completely regulated by the mind; the individual is more skillful in his interpersonal communications. Reproduction will start the entire process over again. The race—and the quality of the race—is thereby sustained.

The height of the powers of the individual is reached during maturity, and the powers also are gradually lost during this period. The ways of life of the individual will determine when the height is reached, the extent of it, and the beginning and rate of decline. During the postadolescent period, the power of the individual to hold and maintain what has resulted from his growth and development becomes a struggle. He may become stronger, more skillful, and mentally more efficient during this period. However, regardless of effort and human care, decline is inevitable.

Objectives, then, are to maintain fitness, develop new abilities and interests, and delay the beginning of the decline as well as the rate of decline. Functional levels can be maintained longer if care is given to the body through exercise and hygienic practices. All vital organs of the body need care, especially the heart, circulatory and respiratory systems, the muscular and digestive systems, and the neuromuscular mechanism.

The extent to which adults maintain fitness, develop new physical abilities and interests, and delay decline of their bodies is affected by their secondary school physical education experiences. Such programs should teach scientific facts about health and exercise, including amounts, kinds, and frequencies recommended at all ages of life. The programs should help adolescents develop a variety of skills, for adults tend to pursue physical activities for which they developed skills as adolescents. Attitudes should be taught, because maintenance of fitness depends to a large extent upon feelings and beliefs about the importance of "living in health and fitness."

Life During the Early Years

The human organism is strongly influenced by its habitat—physical, social, and biological. This is particularly true during the early years. Until the mind is able to make critical judgments, the individual needs to be guided and protected from the influences of the environment.

The child grows and develops rapidly during the early years. The changes involve the entire body and all vital organs, both in structure and function. Cell differentiation and specialization occur with resulting functional powers of the human organism. The procedure, in good health, is systematic and orderly.

Many factors are related to growth and development. All are important because of the physiological values and needs during growth and because of the patterns developed during early life. Favorable growth and development during the early years are essential for good health and efficiency throughout life.

Exercise is one of the most important health factors. It favorably influences growth during the early years and develops the functional powers and skills of the individual during maturity. Properly planned and regulated, exercise can remake the physical limits of the individual, particularly during the early years. The muscular, respiratory, and circulatory systems of the body, in particular, contain the potentials of the individual for health, physical power, and endurance. Exercise, along with other life essentials, will translate the ingredients of the body into physical power. The extent is determined by the quality of the human mechanism, the quality and quantity of the ingredients, and the frequency, duration, and intensity of exercise. Because the results of exercise are determined by the nature of exercise itself, the development of human power and health becomes a planned and precise scientific matter.

Nutrition greatly affects growth and development of the child. Food serves as the source of energy. The greater the expenditure of energy, the larger are the food requirements. Proper nutrition is essential for proper growth. Reports indicate that improved nutrition in this country is reflected in the increased stature of the American girl and boy. Studies also show the effects of inadequate diets on German youth during two war periods of food shortages and rationing. Both weight and height showed retrogression because of insufficient caloric, protein, vitamin, and mineral content in the diet. Undernourished children are underactive. Underactive children become underdeveloped because of the inactivity itself and because of improper nutrition.

The nutritional requirements for a child are an individual matter. Exercise and activity, skeletal development and needs, muscular development and strength, adipose tissue and amounts, and energy status and needs are all factors which must be reviewed before the nutritional requirements of any one child can be established. Proper balance of carbohydrates, proteins, and fats with the essential caloric, mineral, and vitamin content, according to needs and activity, becomes the requirement for proper growth and development. Adequate nutrition is needed for a body to have appropriate symmetry, acceptable posture, muscular strength, ability to sustain stresses of endurance, and abundance of vitality to play. Vitality for play adds another favorable factor—exercise. Causes and effects operate in both directions—nutrition for energy and energy for exercise in order to develop the energy potential.

Play of a wholesome and enjoyable nature is as important to a child's well-being as are the requirements of exercise and nutrition. Fun and happiness that the child experiences in daily life are the basis not only for proper social and emotional growth and development but also for proper physiological growth and development. Through play, the child does much to develop feelings of security as he expresses himself through movement, finds success and satisfaction, is accepted by others, develops mentally, and learns social and emotional skills.

Because health, through play, is a part of growth and development, the basic elements which will cause the child to desire and enjoy wholesome play must be identified and applied. The first of these elements is creativity. The child must discover or learn for solid satisfactions. The adult leader can provide numerous opportunities for discovery in any play-situation. The child also needs the satisfaction of companionship—someone to be with, someone with whom experiences can be shared. He enjoys games when the element of self is placed with or against someone. The opportunity for success and for the enjoyment that goes with it provides a challenge. The potentials for failure and for understanding the success of others make this element an important factor for proper development. Other elements which will cause the child to play and enjoy playing are skills for successful participation in an activity and opportunities to be out-of-doors.

Work responsibilities represent a basic element for potential happiness. Deep satisfactions result when something important to the child has been accomplished. The child must be challenged and obligated in responsibility. The challenge can be anything that is accepted and accomplished, but it has added significance, from the standpoint of health, if the factors of exercise, nutrition, and enjoyment are part of the requirements and the challenge.

Sleep and rest are essential for optimal growth, development, and health. During periods of rapid growth, the organism demands more sleep. The anabolic processes occur largely during this period. The well-rested organism is able to participate more intensely in activities, adding favorably to growth and development. Restoring and developing the energies needed for an active life are essential during early years. Sleep and rest are more important at this period than at any other time during the life of the individual.

Exercise, nutrition, play, work, sleep and rest—these important health factors related to optimal growth and development must be recognized as part of the child's life and actions. In a recent report by Campbell and Pohndorf on the physical fitness of American and British youth,[1] it was found that British youth, both girls and boys, are superior to similar groups of Americans. More precisely, the British boys were superior to boys in the United States, but both groups improved with age (10 years to 17). British girls were also superior, but the American girls either showed little improvement or actually regressed with age. In some combination of the factors related to child growth and development, American children are inadequate. It is truly a serious matter when one recognizes that losses at this period of development will never be regained.

What can secondary school physical educators do to improve development during the growing years? Paying attention to present and future needs of their students, they can teach about exercise, nutrition, play, work, sleep and rest, the importance of physical fitness, and preparation for parenthood. Some of this teaching can be done as students learn and participate in physical activities; some can be done through classroom work and assigned or suggested reading. Physical education should help prepare students to achieve significantly during their student days, to "live in fitness" during their postschool life, and to raise children healthfully.

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[1] Campbell, William R., and Pohndorf, Richard H. "Physical Fitness of British and United States Children." *Health and Fitness in the Modern World.* Chicago: The Athletic Institute, 1961. Chapter 2, p. 8–16.

The Aging Process

During the process of aging, both internal and external forces cause changes in the human organism. Living involves stresses of many kinds; external stresses cause internal changes. Internally, the functions of the nervous system maintain resistance during stress. The human organism attempts to maintain a steady state of functions (homeostasis). The strength and quality of the human tissue will determine the level of balance of the human body between internal and external forces. The level itself will also affect the physiological functions of the body and, in turn, the aging process.

Stress. Selye[2] reports that response to stress includes three reactions: first, the direct effect of the stresses upon the body; second, internal responses which stimulate tissue-defense; and third, internal responses which stimulate tissue-surrender by inhibiting defense. Selye also states that stress is usually the outcome of a struggle for self-preservation of parts within a whole. This is true of individual cells within man, of man within society, and of individual species within the whole animate world. Adaptation is determined by the balance of operating forces. Maladjustments are related to general physiological malfunctions, such as heart, circulation, and kidney disorders.

The process of aging is retarded or advanced by many factors. Some stem from the internal mechanisms of the body, some from the external environment—both animate and inanimate. The internal factors are the quality of the internal functions and vital organs. The external factors are the stresses which are placed on man and his reaction to them—the nutritional habits of the individual and the status of body weight; the exercise habits of the individual and the frequency, intensity, and duration of exercise; the nature of the individual's work, whether physical or nonphysical; the fatigue status and its chronic nature; and the individual's physical environment and resources for the protection and care of the human body.

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[2] Selye, Hans. *The Stress of Life.* New York: McGraw-Hill Book Co., 1956.

Physiological age is not determined by the time of birth but rather by the total amount of wear and tear on the body, the expenditure of energy in relation to supply. When expenditure exceeds supply, retrogression begins. Exposure, as a conditioning process to prepare the person for such life, is not recommended by scientists. Exposure to stress leaves a scar, and the cumulation of such scars establishes the physiological age of the individual. Physiological age, not chronological age, determines health and time of death. Selye states that the individual rarely dies of old age, but nearly always death is due to a vital organ which is prematurely worn out, diseased, or both.

Stress is a factor in the malphysiological functioning of the body. Imbalances occur. The efforts of the individual for balance cause additional stress. The cumulation results in the inability of the individual to meet the demands of daily living. The breakdown is often physical but also, in many cases, emotional. Hospitals report an increase of 250,000 emotionally disturbed patients each year. It is tragic for each person, but particularly for the three out of five who will never leave the hospital. It is the complete destruction of the body even though some life exists.

Nutrition. Inactivity is the most important single factor causing overweight. Food intake has not been adjusted to the highly mechanized, sedentary existence peculiar to modern Western societies. The individual's life must be reorganized either to regulate food intake to the level of physical activity or to increase physical activity to the level of food intake.

Bortz[3] reports that an intimate reciprocal relationship exists between aging and diet, exercise, and rest. Experiments indicate the value of limited caloric intake plus exercise to promote longevity. In controlled experiments, animals given all the food they wanted, and with limited exercise, shortened their life span to half that of animals on restricted food plus exercise. It is the muscular system that holds the key to a long and healthy life, and it can be altered by diet and exercise. Bortz also reports that adversity in the form of altered food supply, inactivity, trauma, disease, or complete disuse leads to deterioration which may go on to dissolution. In these instances, cholesterol and fatty acids have more opportunity to settle in crevices in the blood vessels.

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[3] Bortz, Edward L. "Exercise, Fitness and Aging." *Exercise and Fitness.* Chicago: The Athletic Institute, 1960. Chapter 1, p. 1–9.

Reports consistently state that lack of exercise is an important factor in raising blood cholesterol.

Exercise, of course, entails considerable expenditure of energy. A sedentary man requires about 2400 calories per day. For a physically active person, the amount may be at least doubled. Contrary to belief, exercise does not cause an increase in food intake. This is true when such habits have already been established, or if the individual has always been active. A sedentary man can increase the amount of exercise but not his food intake. The increased activity will then use reserves, and the body weight will be reduced. If, however, activity is decreased, appetite does not decrease proportionately. The result is more reserve than is used and an accumulation of fat.

Exercise is a major factor in weight control as well as in other physiological processes. Physically active people tend to have more uniform weight. It is of major importance for an athlete either to continue his activity in later years (which rarely happens) or to cut his food intake considerably. Because athletes have been active, the use has matched the intake. A cut in activity then becomes a serious matter, and overweight frequently results. This is one reason why longevity studies do not demonstrate the worth of exercise when athletes and nonathletes are used as subjects.

As recently as 70 years ago, man consumed 6000 to 6500 calories per day—and used them; today his needs are 2400 to 2800 calories. Women needed 4000 to 4500 calories 70 years ago; today they need only 1800 to 2200. This change is due to less physical work. Many people have not cut intake accordingly, however, and so over one-third of the American population is obese. This condition is the beginning of health trouble. Bortz states from his hospital experience that cancer occurs three times as often in persons who are 25 percent overweight as in persons who are normal in weight or slightly underweight when the first sign of the tumor has been identified. This is only one disease which is associated with overweight.

Fatigue. Fatigue is the result of overusing or overloading any given function of the body until it gradually loses its ability to meet the requirements. It is the relationship which exists between wear and repair. If one is able to repair the organism during its use, fatigue will be long delayed. Fatigue can occur in all functions of the organism—physical, emotional, social, and intellectual. It is directed and precisely related to a specific function, although it is sometimes difficult for the human mind to identify that function. In fact, identification and measurement of mental and emotional fatigue, as it truly exists in the human organism, are difficult, if not impossible, at the present time. Only when fatigue is so severe that it significantly influences the circulatory-respiratory systems can results be determined.

Dill,[4] in distinguishing types of fatigue, states that in work of long duration the oxidation of carbohydrates or fat occurs, while intense work of short duration is accomplished without oxidative reactions; these occur during recovery. Dill summarizes the characteristics of fatigue resulting from all-out exercise of short duration: The work is chiefly anaerobic; the oxygen debt is a measure of the anaerobic energy transformed. The O_2 debt has two forms—alactacid and lactacid. The alactacid debt is paid in a few minutes; lactacid debt is paid about one-twentieth as fast, in about one and one-half hours. There is an increase in the resting O_2 consumption, but not a debt in the true sense. Diffusion of lactate is rapid from the tissue cells producing it into blood plasma and thence to less active muscles.

In exhaustive exercise of longer duration (10 to 15 minutes), there is time for the lactic acid to move to all tissues. The total amount of accumulation may be larger than in exercise of short duration. Also, O_2 and CO_2 are at their highest level during the exercise, as well as the heart rate and cardiac output. Economy of effort is also an important factor in the longer exercises and the level of fatigue. The fuel for such work is largely carbohydrates. Fatigue may be caused by exhaustion of carbohydrate reserve, accompanied by depletion of blood sugar. Fitness for exhaustive work of long duration depends upon a minimum of wasted effort and also upon a high capacity of the respiratory-circulatory systems for supplying O_2 to the tissues.

Work. The working conditions and the job itself will influence the health status of the individual as well as the levels of morbidity and mortality. Raab,[5] in a summary of statistical evidence, supports this statement. Studies dealing with exercised and nonexercised groups in physically active and sedentary occupations show that those individuals in the highly physical occupations have the advantage in health. The less active or underexercised individuals have an earlier and greater cardiovascular morbidity and mortality, and their cardiac performance under stress is inferior to that of the trained sportsman or lumberjack.

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[4] Dill, David B. "Fatigue and Physical Fitness." *Science and Medicine of Exercise and Sports.* (Edited by Warren R. Johnson.) New York: Harper and Brothers, 1960. Chapter 20, p. 384–402.

[5] Raab, Wilhelm. "Degenerative Heart Disease from Lack of Exercise (Neurohormonal Pathogenic Mechanisms)." *Exercise and Fitness.* Chicago: The Athletic Institute, 1960. Chapter 2, p. 10–19.

Karvonen's work in Finland also supports these findings.[6] Deterioration, which determines the length of life, is hastened or delayed by factors which can be managed by the individual. Karvonen reports that sports which cause marked changes of the cardiovascular system, manifested, for instance, by an increase in heart size, do not shorten life but may prolong it. The frequency of nonfatal illness (40-59 years), judged by electrocardiographic findings associated with coronary heart disease, was significantly lower among lumberjacks than among those in lighter occupations. Karvonen states that long-term training, as required for skiers in Finland, appears to have a beneficial effect on the cardiovascular system, either by increasing the myocardial reserve or by suppressing the cholesterol level and thus protecting against coronary heart disease.

Hedley[7] concludes that those occupations with a low death rate from reported coronary heart disease require considerable physical activity, and those with a high rate are occupations considered sedentary. High death rates were found among business executives, lawyers, judges, and physicians; those with low death rates were farmers, coal miners, and general laborers.

It is also reported that those occupations having the highest death rate from coronary heart disease not only require a high degree of mental activity but also involve considerable anxiety and stress. Several occupational studies reported by Taylor[8] conclude that the incidence of death rate from heart coronary was less in occupations requiring physical activity. It is recognized that other factors are involved—psychological and nutritional ones in particular.

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[6] Karvonen, Martti J. "Some Effects of Long-Term Exercise on Health and Aging." *Health and Fitness in the Modern World.* Chicago: The Athletic Institute, 1961. Chapter 23, p. 223–27.

[7] Hedley, O. F. "Analysis of 5,116 Deaths Reported Due to Acute Coronary Occlusion in Philadelphia, 1933-1937." *U.S. Weekly Health Reports* 54: 972; 1939.

[8] Taylor, Henry L. "The Mortality and Morbidity of Coronary Heart Disease of Men in Sedentary and Physically Active Operations." *Exercise and Fitness.* Chicago: The Athletic Institute, 1960. Chapter 3, p. 20–39.

Environment. The environment itself has favorable or unfavorable aspects for health. This is due in part to educational and cultural levels and in part to physical elements. The most important, of course, is the former. Still[9] reported the average length of life in 46 countries. The range was from 71.0 years (Netherlands-male) and 73.9 (Netherlands-female) to 32.5 years (India-male) and 31.7 (India-female). The difference in life span between male and female was found to be greatest in Finland (6.4 years in favor of female) and least in Ceylon (.9 years in favor of male). The average of the Western populations of the world is 60.1 years (male) and 65.7 (female), compared to 45.5 years (male) and 44.9 (female) in countries of the Far East. It is interesting to note that the difference in life span between the sexes, as compared to 6.4 years in Finland, is 3.4 years in Norway, 2.9 years in Sweden, and 2.3 years in Denmark. It is evident that factors beyond the natural biological advantages or disadvantages determine those differences.

Norris and Shock[10] report that muscle strength and ability to maintain coordinated muscle work decrease with age from a peak at age 30. The maximum rate of O_2 uptake and maximum lung ventilation during exercise also showed a marked decline with age. During submaximal work, however, an increase in lung ventilation with an increase in age is found. Maximum heart rate decreases by about 40 beats per minute from age 20 to age 75. Mechanical efficiency of muscular work is shown to decrease more in old subjects than in young subjects when work rate is decreased. Slowing of the physiological recovery processes from exercises and failure of coordination of the basic physiological functions may be partly responsible for the reduced performance of older people.

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[9] Still, Joseph W. "An Attempt To Show the Links Which Connect the Social-Psychological and Physiological Events Which Result in Coronary and Other Thromboses, with Some Suggestions for Breaking the Connections." *Exercise and Fitness.* Chicago: The Athletic Institute, 1960. Chapter 6, p. 52–67.

[10] Norris, Arthur H., and Shock, Nathan W. "Exercise in the Adult Years—with Special Reference to the Advanced Years." *Science and Medicine of Exercise and Sports.* (Edited by Warren R. Johnson.) New York: Harper and Brothers, 1960. Chapter 24, p. 466–90.

Probably most significant are the differences in physiological aging and the effects of activity and ways of life upon structure and function of vital organs. Between the ages of 30 and 55, there are marked individual differences. Montoye,[11] in a review of literature on aging and longevity, states that the way of life of the individual is more important than sports participation during early life. This would appear reasonable since the effects of exercise during early years will not maintain itself throughout life unless appropriate activity is continued.

In a report on aging and longevity, Mateeff[12] states that the struggle for a better life has brought about improvements in living conditions in homes and at work. Regulated working hours, opportunities for recuperative rest and sleep, improvement in nutrition, and development through physical exercise have had beneficial influences on the organism. In Russia the average length of life, since the revolution, has more than doubled—from 32 years to 67. Also, developments in control of disease have lowered the mortality rate. Now, because man lives longer, other diseases such as arteriosclerosis and cancer have developed. These are diseases which are manifested after continuous and prolonged action of various harmful factors on the organism. Smoking, for example, requires decades to manifest results. The level of plasma cholesterol, resulting from obesity, must also act for decades before arteriosclerosis develops. If man abstains from such deleterious practices as smoking, excessive drinking, and overeating, and if he then exercises or performs hard physical labor, a considerable prolongation of life may be expected.

Mateeff cites research on the value of cerebral activity against senile involution and the value of daily water applications to the body. The ordinary and brush massage should not be disregarded. The nervous reaction to these practices reflects favorably on physiological functions of the body. Cold water applications are beneficial if the organism is prepared to react favorably. It is of particular importance that control of senescence begin early in life, as it is considerably more difficult to control the aging process once it has started. Practices should start during childhood.

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[11] Montoye, Henry J. "Sports and Length of Life." *Science and Medicine of Exercise and Sports.* (Edited by Warren R. Johnson.) New York: Harper and Brothers, 1960. Chapter 27, p. 517–22.

[12] Mateeff, Dragomir. "Morphological and Physiological Factors of Aging and Longevity." *Health and Fitness in the Modern World.* Chicago: The Athletic Institute, 1961. Chapter 1, p. 3–7.

Exercise. Exercise is probably the most important factor in the development and maintenance of good health. It certainly plays an essential part in developing and maintaining the physiological functions of the body, particularly respiration and circulation. Bortz states that exercise is a master-conditioner for the healthy and a major therapy for the ill. He says that exercise establishes a dynamic homeostasis to increase the ability of the organism to respond to life's physical, emotional, and social demands. Bortz also indicates that the waning of power with age can be minimized with exercise. The basic tissues in which alterations appear with age are the skeleton, musculature, arteries, and nerves. All are related to diet, exercise, and rest.

Raab reports that habitual lack of exercise leads to a deficiency of vagal cholinergic and sympatho-inhibitory mechanisms in cardiac functional regulation. The result creates a threat to myocardial health. Balke,[13] in his exercise research, states that there can be no doubt that well-trained men can mobilize and utilize fat more efficiently than untrained men, that the plasma cholesterol is reduced with training but that the working cholesterol level always rises in the more fit individuals. In comparing the active and sedentary groups (ages 19 to 65), Balke found that in the sedentary group the functional physiological capacities diminish with age. However, regularly active individuals have a much greater potential in general, and, in later life, are able to compete successfully with the younger persons. Exercise and training aid the individual in the utilization of metabolic reserves.

Exercise causes physiological changes in the human organism. The frequency, intensity, and duration of exercise determine the nature of the changes. Brouha[14] reports that exercise improves each bodily system 25 percent or less, but, when taken together, all the effects may result in an improvement of total performance as high as 100 percent. Both the magnitude and duration of work which can be done are improved. Brouha summarizes the changes which may be produced by strenuous training or exercise:

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[13] Balke, Bruno. "The Effect of Physical Exercise on the Metabolic Potential: A Crucial Measure of Physical Fitness." *Exercise and Fitness.* Chicago: The Athletic Institute, 1960. Chapter 8, p. 73–81.

[14] Brouha, Lucien. "Training." *Science and Medicine of Exercise and Sports.* (Edited by Warren R. Johnson.) New York: Harper and Brothers, 1960. Chapter 21, p. 403–16.

1. Increased muscle strength and improved neuromuscular coordination
2. Greater mechanical efficiency as measured in terms of lower oxygen consumption for a given amount of work
3. Greater maximum oxygen consumption
4. A higher maximum cardiac output with less increase in pulse rate and blood pressure during submaximal exercise
5. More economical ventilation during exertion and greater maximum pulmonary ventilation
6. Lower blood lactate for a given amount of exercise, i.e., capacity to perform more work aerobically; and ability to push self to a higher blood lactate before exhaustion, or the capacity to perform more work anaerobically
7. Quicker recovery in pulse rate and blood pressure after submaximal exercise
8. Better heat dissipation during submaximal exertion.

Though adolescents may be little interested in longevity, each youngster's interest in his own body is great. In addition to teaching about the effects of stress, nutrition, fatigue, work, environment, and exercise upon health, upon ability to use one's body, and upon one's sense of well-being, secondary school physical education should suggest adult exercise programs for future use by present-day students. Secondary schools should, of course, help students develop physical skills and interests in adult physical recreation. Furthermore, attention should be given to self-testing procedures and to developing persons who will become family and community leaders for fitness and physical activities. Almost all secondary schools should give far more emphasis to personalized physical education designed to produce people who will "live in fitness" now and in the future.

Standards for Health and Fitness: The Adult

Health, fitness, and aging are correlated qualities. Although the basic principles expressing valid physiological relationships can be developed, setting standards becomes complicated because of individual differences. These differences include experiences in ways of life, body type, nutritional practices, exercise patterns and history, disease and defects status and history, hereditary stock and history, emotional status reactions and actions, attitudes and conditions associated with work, physical and animate environments—nature of health relationships and stresses, and the status of the individual in the degree of repair of the human organism from work and stress, or the status of fatigue, both temporary and chronic. The specifics for health and fitness standards, therefore, must be individualized, but the basic principles apply to all. The only requirement is the supporting scientific evidence.

Regardless of hereditary stock, whether good or poor, the individual is physiologically influenced by the way of life he practices. The seriousness of the results depends on the quality of the organism itself, the extent or magnitude of the practices, and—most important—the length of the practice. It is reported that, because man now lives longer, bad health practices have time to take effect and the incidence of certain diseases is consequently greater. Lack of systematic exercise during youth will be reflected during adulthood, and lack of systematic exercise during adulthood will reflect in the health-fitness status of the individual. Failure to exercise systematically is one factor in reducing the quality of health and feelings of well-being and in decreasing length of life. This is particularly true when one engages in other unfavorable health practices. Exercise is a major compensating health factor.

In conclusion, an attempt will be made to translate scientific evidence into standards for desirable health practices of the adult individual. A completely valid differentiation between the various age groups for each health facet is difficult. It would seem, however, that the general direction for practices is of most importance. The individual, through knowledge about himself, can individualize the emphasis within each age group. Bad practices or disregard of favorable practices in any of the eight health components upon which the standards are based will result—regardless of the individual—in lowered health and fitness, an increase in the incidence of morbidity, and a decrease in the potential mortality level. The chart on the following pages presents 50 standards for the health and fitness of adults. It can guide secondary school health and physical education teachers as they seek to prepare students to live a long life "in health and fitness."

FIFTY STANDARDS FOR THE HEALTH AND FITNESS OF ADULTS

(With Special Reference to the Early Years)

Health and Fitness Components	General Standards	Age Standards		
		Early Life—Below 25 Years	Middle Life	Late Life—Above 70 Years
Disease and Defects	Controlled and corrected	(1) Defects should be corrected immediately, especially during the early years.		
		(2) Special examinations should be given for all abnormal individual growths and developments.		
		(3) All infectious diseases must be controlled; the individual must be protected against all disease.		
		(4) The individual should be treated immediately for disease.		
		(5) All individuals should have yearly medical, dental, and physical examinations; examinations upon abnormal indications of organic function.		
		(6) Special protection and correction should be given during early years to develop the organic potentials; and protection and correction during the middle and late years to sustain organic powers.		
Nutrition	Balanced and appropriate for work output	(7) Food intake must be equal to energy output.		
		(8) Food intake must be regulated according to the utilization by the body; overweight and underweight are guides on food uses by the body.		
		(9) Food intake must contain a content balance of carbohydrates, proteins, and fats with the caloric, mineral, and vitamin essentials.		
		(10) Physical activity is essential for proper growth during the early years; proper quality and quantity of food are necessary for physical activity and growth.		
		(11) Growth and development must proceed concomitantly; proper food according to growth and development rates is essential.		
		(12) Obesity must be avoided at all ages, but particularly during the early years.		
		(13) The growth rate is reduced with age and ceases on maturity; food intake during middle and late years should also be reduced or physical activity increased.		

Health and Fitness Components	General Standards	Age Standards		
		Early Life—Below 25 Years	Middle Life	Late Life—Above 70 Years
Work	Satisfying; acceptable to society; and contributing to the development and adjustment of the individual	(14) Work responsibilities must be established during the early years. (15) Work must be satisfying, challenging, and result in a sense of belonging. (16) Work must lead to more success than failure; the potential of success must always be found in work. (17) Work must lead to accomplishments. (18) Work must contribute to the health status of the individual; the individual must be protected from all hazards. (19) Work must be acceptable to society and contribute to its welfare, in addition to individual acceptance. (20) Work must be free from abnormal stresses and strains and chronic fatigue or work regulated for the protection of the individual.		
Environments (animate and inanimate)	Satisfying; contributing to the development and adjustment of the individual; and the individual contributing to the development and adjustment of the environments	(21) The animate and inanimate environments must be satisfying to the individual; the environments must contribute to the development of the individual. (22) The animate and inanimate environments must be free from abnormal stresses and strains and other health hazards. (23) The individual must prepare for life in the animate (society) and inanimate worlds by knowledge of the environments for individual applications. (24) The individual must prepare the environments for individual protection. (25) The individual must adapt to the physical environment by utilizing the environment for physical activity. (26) The individual must adapt to society by participating in society according to desirable practices.		

Health and Fitness Components	General Standards	Age Standards		
		Early Life—Below 25 Years	Middle Life	Late Life—Above 70 Years
Attitude	Informed; optimistic; controlled; and directed toward the development and adjustment of the individual to society and society to the individual	(27) The individual's attitude must be directed toward developing security in and for self. During the early years, life directed toward achievable goals is most important.		
		(28) The individual's attitude must be directed toward developing security in and with others; social adjustment and goals begin during the early years as the most important time for development.		
		(29) The individual's attitude must be directed toward developing security in and with the physical environment; enjoyment and adjustment in the physical world begin, with emphasis, during the early years.		
		(30) The individual prepares for security through optimal development of the mind, the emotions, the body, and social relationships; emphasis on preparation should come during the early years.		
		(31) The individual prepares for security through the protection of self—retention of gains with avoidance of losses in all facets of life. Emphasis on preparation should begin during the early years.		
Health Practices	Acceptable; consistent; and contributing to the development and adjustment of the individual, the individual to society and society to the individual	(32) Repairing and restoring the human organism through sleep and rest are essential at all age levels; a minimum of one-third of the day (8 hours) should be allowed with additional amounts during the early years.		
		(33) Drugs and self-medications should be avoided at all levels; only drugs prescribed by a physician for a specific purpose and time should be used.		
		(34) The individual should abstain (at all age levels) from all deleterious health practices, particularly smoking and abnormal alcoholic drinking.		
		(35) The individual should apply to personal practices all knowledge about care and development of the human organism; the elements of particular importance are food, exercise, and the hygienic care of the body; hot water followed by cold water baths should be applied daily.		
		(36) The individual must be protected from all potential hazards in the environments (accidents); knowledge and skill for the individual life activities must be learned and practiced by the individual early in life for practices throughout life.		

<table>
<tr><th rowspan="2">Health and Fitness Components</th><th rowspan="2">General Standards</th><th colspan="3">Age Standards</th></tr>
<tr><th>Early Life—Below 25 Years</th><th>Middle Life</th><th>Late Life—Above 70 Years</th></tr>
<tr><td>Leisure</td><td>Daily; satisfying; acceptable; and contributing to the development and adjustment of the individual, the individual to society and society to the individual</td><td colspan="3">(37) Leisure must be used constructively at all ages, but especially during the early years.
(38) Leisure must be enjoyable at all ages, but especially during the early years.
(39) Leisure must be creative at all age levels.
(40) Leisure must provide opportunities for enjoyment of the out-of-doors.
(41) Leisure must provide opportunities to learn skills in activities which are enjoyable and satisfying; interests and skills should be emphasized during the early years.
(42) Leisure should provide opportunities for companionship.
(43) Leisure should provide opportunities for physical activity and competition; competition during the early years should be informal (minimum structure), gradually leading to the formal.</td></tr>
<tr><td>Exercise</td><td>Daily; physically demanding; contributing to the development and maintenance of the physical powers of the individual, and contributing to the internal functions and adjustments of the human organism</td><td colspan="3">(44) Exercise is required to maintain life and it is necessary for good health; it must be a planned part of the individual's daily life.
(45) Physical activity and exercise should constitute the major part of the individual's early life; the amount and intensity of exercise decrease with age during the middle and late years.
(46) Physical activity and exercise must be frequent, intense, and of long duration during the early years; development must be in proportion to growth rates.
(47) Physical activity and exercise must be equal to the energy supply from food; the potential for development and growth is thereby determined; food in quality and quantity must, therefore, be emphasized during the early years, i.e., as much food as can be utilized by the organism.
(48) Physical activity and exercise are essential during the middle and late years in order to maintain the physiological functions.
(49) Physical activity and exercise are essential to build power during the early years and maintain power during the middle and late years.
(50) Physical activity and exercise should be planned above the living energy level of daily life; special activity is, therefore, necessary (above job requirements, if sedentary).</td></tr>
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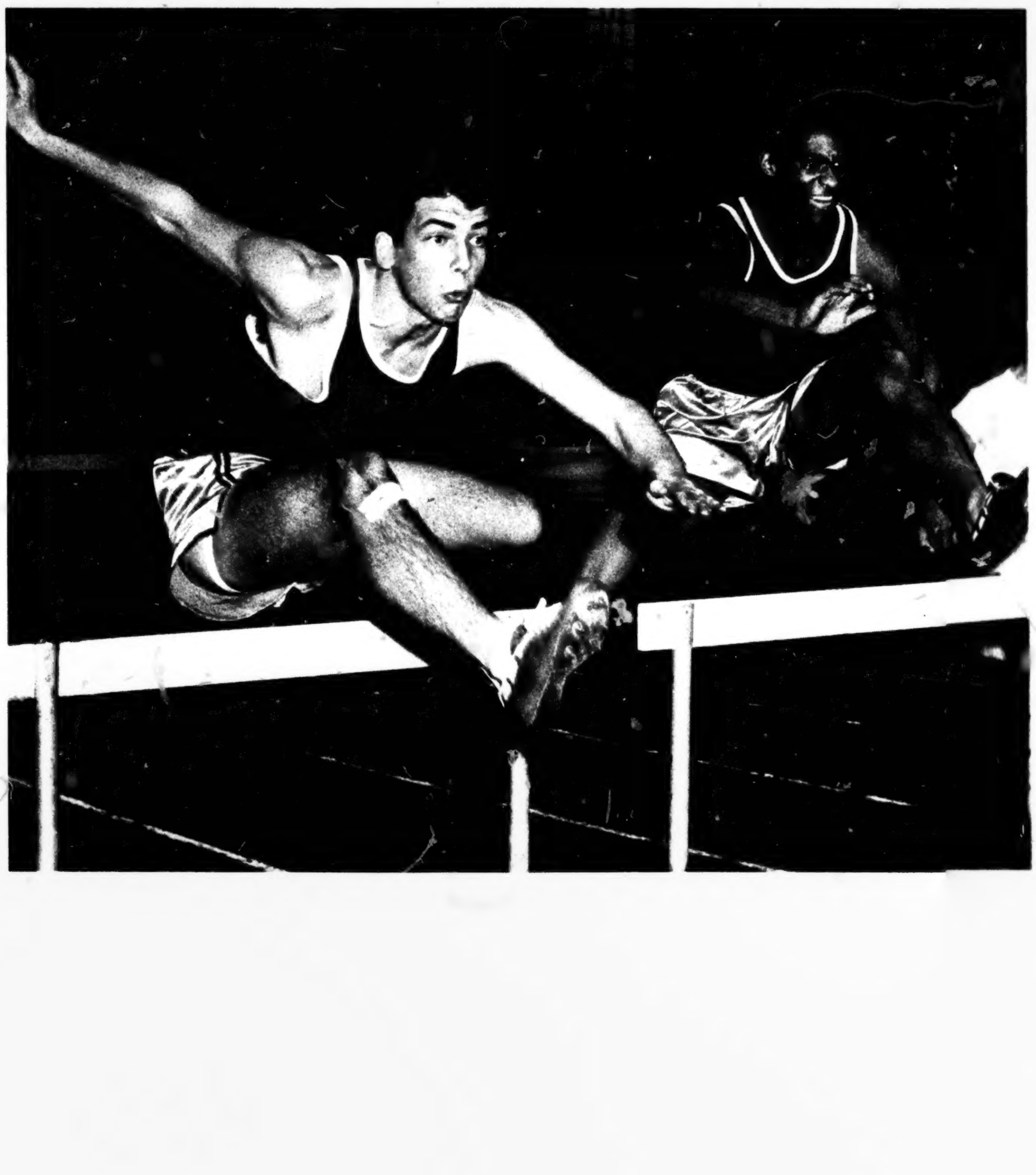

CELESTE ULRICH

12

Challenge to Excellence

PHYSICAL EDUCATION

In tomorrow's world, there will be no room for mediocrity. Education is committed to serve excellence and, as Publilius Syrus noted, "It takes a long time to bring excellence to maturity." Education *must* ensure the maturity of excellence by taking steps today in that direction.

Traditionally, the role of education in any society has been to pass on the heritage of the race and to provide the framework for the acquisition of skills and attitudes which will foster new knowledges, insights, and relationships. This is a sound role and it will not change.

However, the attitude toward the method of enacting that role must change, and this will come about only as education dedicates itself to excellence instead of mediocrity.

Physical Education: A Part of the Whole

Physical education, as an integral part of education, must solve its own dilemma in its quest for excellence, but the crest of its search will rise and fall with the tide of general education. Physical education is obliged to note this relationship, and intelligent physical educators will lend their strength to education in general as they seek to improve physical education in particular. Physical education must positively identify the unique aspect of its contribution to the total education of the individual and then seek to strengthen that contribution and intensify its quality.

The basis upon which any sound program of physical education must be built is found in the concept of human self-movement. Movement is life. Without basic physiological movement, there is no human life. Principles of movement can be found in the constant throb of the pulsating heart, in the expansion and contraction of the lungs, in the impulses of the nervous system as they leap synapses and travel through the intricate network of cells, in the peristaltic squeeze of the digestive system, and in the muscular system with its contraction and relaxation phases which encourage gross motor activity of the entire being. While man is alive, he *must* move physiologically in some way.

The basic physiological pattern of life provides existence only, and the human being wants more than mere existence. For a rich, full life, man must interpret his ideas, his thoughts, his insights, and his dreams to other men. The basis of this interpretation once again lies in movement. Sometimes this movement is in very specialized patterns, such as vocal control or finger dexterity. Much more often it is in bold and exciting patterns of gross body movement—movement which reflects emotional situations, movement which depicts a way of life, movement which expresses the personality, movement which gives meaning to life itself.

The Movement Principle in Education

Physical education must concern itself with the basic ingredients of movement and must stand firmly for the study of movement in the total educational pattern of the individual. Movement can be effected in many ways: It can be the result of simple motor coordination skills such as running, walking, hopping, skipping, and jumping. It can be utilized as the core of sports activities and find its outlet in the play patterns of people. It can be the basis of aquatic activity. It can provide the foundation of corrective therapy. It can find an outlet in meaningful dance forms and patterns. All these activities are the bedrock of physical education, and the study of movement in each of these situations provides the underlying continuum of the unique subject matter that concerns physical educators—the self-movement of man.

This is not a new approach to physical education. It is the original and basic approach recognized as an intricate part of the educational system of the ancient Greeks, Romans, Egyptians, and Chinese. This tenet was basic in most programs of physical education until the early twentieth century in the United States, when a series of educational circumstances swung the rudder so abruptly that the movement principle of physical education was neglected and personality and socialization were emphasized. Sargent, Roberts, Hetherington, Wood, Hanna, Hitchcock, McCurdy, Ling, Jahn, and hundreds of other leaders in physical education set their sights boldly on the principles of human physiological movement as the basis of man's existence. It is time to return to that principle. It is a good principle and one that necessitates no apology for being interested in the body of man as the *sine qua non* of human life.

In the acceptance of movement as the "cutting edge" of physical education and as its unique contribution to the educational system, it is necessary to acknowledge that each individual has basic differences. Just as there are individual differences in heart rate, respiration rate, reaction time, metabolic rate, and the rest of the fundamental biological processes, so are there differences in gross movement patterns.

Each person must be taught with reference to what he may become from what he is. For example, because of sexual differences that are biological, psychological, and sociological, it is absurd to believe that "girls should be able to do everything that boys can do." Physical education programs for boys and girls must be taught in a different way because the limitations and the potentialities of the sexes are different. Just as it is important to acknowledge that the majority of girls will not be as strong as most boys, the majority of boys will not mature as rapidly as most girls, the majority of boys will be taller than their sisters, and the majority of girls will have greater fat tissue than their brothers, so it is equally important to acknowledge that within each sex there are even greater individual differences.

Consideration of Skill Levels

An intelligent physical educator will be cognizant of these facts and will gear his program of movement to the concept of individual differences. Realistically, these differences can be dealt with by differentiation of skill levels. For excellence in a physical education program, such differentiation is essential. Individual differences must be dealt with in all of education, and the problems of scheduling students according to skill level instead of chronological age could be solved with facility if skill levels were recognized in all subjects. Such scheduling would do much to promote excellence.

Foremost among the physical educator's duties is the task of utilizing movement as a means of ensuring simple biological fitness for each individual. Fitness is clearly an individual matter, but it can be measured generally by the degree that a person is able to function in the life which he leads. Certainly the individual must be fit enough to meet emergencies as well as his daily living requirements, and an optimum level of strength, agility, coordination, flexibility, and endurance is indicated. There is only one way that this level can be reached and that is through movement —essentially, movement employing the physiological principles of overload. In other words, a person must be encouraged to do a little more than he thinks he can do, and the movement pattern must be intensified each succeeding day until the optimum need is met with facility.

Because exercise is specific, overload is a necessity. In the majority of physical education programs, the students are not pushed hard enough. Unless a student comes out of class evidencing some aspects of purposeful fatigue, the class has probably done little to encourage fitness of the organic system. To achieve excellence, physical education classes must be "doing" classes, not "talking" or "showing" classes. It has been estimated that, in many physical education classes, not more than 5 to 7 minutes of each 45-minute period are spent in physical activity of any intensity. This is a real indictment of physical education, and physical educators must seek to remedy it.

Coaches of extramural athletics are much better at using activity than are the average physical educators. Technique drills, conditioning exercises, and warm-up exercises have their place as methods by which total activity can be introduced to entire classes, ensuring physical activity by all. Games do not always provide the same opportunity for continuous activity. One wonders how often movement is possible for an individual as an outfielder in baseball, as a goalie in soccer or hockey, as a team member in volleyball. Excellence of movement insists upon fitness, and fitness is completely dependent upon the opportunity to move. It is a vicious circle and one that the physical educator must purposely plan to utilize.

Utilization of Purposeful Tensions

Another way in which the physical educator should utilize movement is in the concept of purposeful tensions and differential relaxations. The actual study of relaxation has significance only as it is related to tension. Too many people have sought to eliminate muscular tension in life and to emphasize relaxation for tranquillity and serenity. Nothing could be worse. In order to effect movement, there must be the tension of contracting muscle tissue. To deny this tension can be a frustrating emotional experience. There is a time when tension—purposeful tension—is the best sort of response to a given situation. If that tension cannot be effected, the resulting state may be conducive to the onset of a stress syndrome brought about by psychological stressors.

Physical education should emphasize the role of purposeful tension and provide outlets for its use. Almost any elementary school teacher recognizes this principle, and the elementary school program is studded with certain times throughout the day when the children can walk, run, leap, hop, and jump. These are often planned recess periods, but, in lieu of these, the elementary teacher will move her children in activity within the classroom.

Somehow, in the desire to foster maturity, the basic principle of movement involving purposeful tensions is lost. It is too bad that in today's society there is an identification of nonmovement with sophistication and maturity. Movement patterns are tolerated in the young, and the same patterns are discouraged in adolescence and adulthood for fear that the movement indicates a childlike approach to life. It is acceptable for a small child to run and jump into a pile of leaves, but his teen-age brother is ridiculed for the same action. It is possible for a little girl to jump rope for hours, but her older sister may be chastized for "acting like a baby" if she attempts to do the same thing.

The avenues open for purposeful tensions for adults are even more limited. Only games—preferably individual and dual sport activities—are available to the adult for movement patterns. So often these activities involve both facilities and equipment. Consequently, purposeful tension is denied the adult, and some type of sublimation takes place. Many European countries have social patterns which sanction and encourage physical activity for their adult populations. The average American adult, however, can find approved activity only in limited patterns of work and play, and usually he is the poorer for such restrictions.

In a physical education program for excellence, there is a place for principles of planned relaxation. Because many people identify relaxation with sleep, a program which seeks to teach relaxation techniques often is criticized by curriculum committees and ridiculed by the public with the comment that "you don't have to go to school to learn how to go to sleep." However, as the tempo of the times increases, the ability to effect relaxation at will is more generally regarded as a valuable asset.

A number of different procedures may be used to teach relaxation techniques. Each one has certain attributes, and the effectiveness of each must be measured in terms of the results it produces. Here, especially, certain distinct individual differences may be noted. Psychic and social pressures are a keen source of agitation, and there are times when these stimuli must be resolved before physiological relaxation may be effected. A program of excellence in physical education will utilize the best relaxation techniques available and make them a part of the movement program in each specific activity taught. Combined with purposeful tension, relaxation techniques can do much to guarantee that each student will be able to meet the situation at hand with what Eleanor Metheny describes as "maximum results with minimum effort."

It is the obligation of excellent physical education programs to teach safety skills, and upon these skills may rest actual survival techniques in tomorrow's world. Obviously, basic skills that will allow any individual to operate with safety in his world are necessary. The elementary physical skills are essential for survival. In addition, certain specific skills in aquatics are desirable, and special attention should be given to such emergency skills as knowledge of kinesthetic principles to avoid injury and minimize normal physical hazards such as falling.

Movement and Health

In line with the emphasis of movement upon the biological aspects of the individual's education are certain concepts of motion which can do much to prevent body pathology. There is increasing evidence that continual exercise may be a deterrent to cardiac conditions. There is certainly ample evidence to point up the fact that exercise helps in weight control. The results of muscular action are reflected in the organic function of the bodily systems. Physical education can claim with verity that activity and movement assist in digestion, increase respiration, abet elimination, and facilitate circulation. These results of a normal, well-planned program cannot be ignored in the emphasis toward a program of excellence.

Of particular interest to the physical education programs which strive for excellence is the study of activity as an alleviator of stress. Hans Selye, a Canadian physiologist whose work has attracted attention, terms any upset of the body which makes it deviate from its normal homeostatic level as a state of stress. Selye claims that the stress syndrome is divided into three phases: the alarm reaction phase, the resistance phase, and the exhaustion phase. Stress may be caused by physiological, psychological, and social stimuli called stressors, and, regardless of the type of stressor, the body tends to react in a usual pattern of adaptation called by Selye "the general adaptation syndrome."

Obviously, extensive movement imposes a stress upon the body that may be intensified by both psychological and sociological inferences in the situation. Hence, a game or contest which involves movement not only will disturb the homeostatic balance because of that movement but also will probably be fraught with connotations of win and lose, success and failure, and loyalty and indifference. It is reasonable, therefore, to suspect that certain physical education activities impose a maximal stressor upon the body, and much may be learned about the individual's reaction to a stress situation by watching his reaction to a sport. This, undoubtedly, is inferred in Roger Bannister's statement that "sport is a diversion with no purpose beyond providing a testing ground, larger than a chess board, but smaller than life itself."

Exercise as a Tranquilizer

As the stressor is imposed upon the individual, the body reacts in alarm and certain stress products are released. Most of these reactions are triggered by the endocrine system and provide the body with the ability to meet and resist the stressor. However, there are times when the alarm reaction seems to create as many problems as it solves. This appears to be especially true in moments of great emotion, when the body is literally bathed in "its own juices." There is some belief that frequency of great emotion may be deleterious to the individual. Nancy Gross, a stress psychologist, has emphasized that at such times there seems to be every indication that movement—total bodily movement—is the best way to "use up the juices." While exercise has the potentiality to impose a stress upon the body, it also can act as a tranquilizer.

Now this concept is not new; instead, it has an age-old ring. The childish tantrum, the slammed door, the fight resulting from idle gossip, the jump for joy, the hand-clapping excitement—all are good examples of the fact that the body insists upon movement when it is subject to emotional duress. As a matter of fact, if that natural movement is denied under the guise of maturity, reserve, or any other socially induced pattern of behavior, there is a good chance that the body will seek motion in its own way, and heart palpitation, tics, nervous gestures, indigestion, and a number of other pathological results of stress will become manifest. The physical educator must recognize the potentiality of activity to alleviate certain stress products and inform his students of ways in which they might meet their own needs. How much better to swat the hide off a baseball, punch a bag, work out on the parallel bars, decisively defeat an opponent at tennis, or lunge with force in hockey than to become a pathetic mortal unable to control bodily reactions and a probable subject for therapy.

Physical educators must be sure that, in their effort to use activity as an ataraxic, they do not become overly enamoured with activity as therapy. Such a concept is a specialized field and demands specialized training, but this is not to say that a physical education program of excellence should not be concerned with the normal strains of today's living and the use of movement to neutralize those strains.

In addition to what a program of activity can do for the biological organism, it is important to note the meaning of skill abilities in other connotations. Movement as an expression of life creates self-assurance in many situations. There seems to be a general theme prevalent today that each person reacts best in a climate of security. To a certain extent, such a tenet undoubtedly has great merit. However, there is the distinct possibility that, in the endeavor to surround the student with security, he is being deprived of the adventure of insecurity. This is tragic. Certainly, sport provides the opportunity to test oneself in a situation where there is security of method but no security of outcome.

There is ecstasy in testing oneself against the unknown. Roger Bannister, telling why he tried so hard to break the four-minute mile, explained that man needs a way to test himself and that the real joy of sport lies in the integration of mind and body in simultaneous tension. Bannister clarified his generalizations by saying that, before man reaches the breaking point in his test of himself, he is able to see if he has the ability to exert muscular force over a distance and within a time; he has been able to test his neuromuscular coordination; and he has had the opportunity, at a higher level, to judge the entire pattern of the game. Bannister's first two criteria for judgment of movement with a purpose are purely physiological in nature and can easily be judged on a pass-fail basis, but his third criterion touches on one of the more subtle innuendoes of movement in sport—the psychological implications.

The Wonder of Insecurity

For one to be able to find himself through his behavioral reaction to a situation where he knows the rules, where he understands the regulations, and where he can measure the outcomes is an experience to elicit wonder and awe. Education has made everything so safe these days that the spirit of risk is often lacking. Certain physical activity can still provide that particular psychic pattern of insecurity, and it seems apparent that physical education should contrive to make skill patterns more difficult rather than easier and safer. Why not play the youngster until his "tongue is hanging out" instead of resorting to judicious substitution that fosters specialization, reduces risks, and denies the participant a real opportunity to test himself?

An excellent program of physical education will offer the wonder of insecurity—the chance to test oneself in an important way. Self-testing activities should play an important part in any physical education program, and the adventure that the activities bring is well worth the accidents hazarded. Rebound tumbling, apparatus activities, stunts, and gymnastics are all essential parts of any program which believes that risk is a part of proving individual excellence.

Sport also provides the opportunity for self-judgment and self-knowledge. Everyone at some time has been surprised by his own reaction to a game situation—the time when he unexpectedly became irritated with his badminton partner, the horror of the goal that was not scored because a teammate was not trusted to make the shot, the undue concern about winning when it had been believed that it really made no difference. Such opportunities for self-knowledge are not so lucidly presented in life itself, and the opportunity for self-judgment with regard to life is not available in the same succinct outline that sport can offer. It is easy to believe, with the Duke of Wellington, that the Battle of Waterloo had been won on the playing fields of Eton.

Sport offers the opportunity to see reactions under pressure; it assists in self-discovery during periods of inductive and deductive reasoning; and it does all this in a role that man can understand. Johan Huizinga, in his classic *Homo Ludens*, has said that "play is voluntary activity or occupation executed within certain fixed limits of time and place and according to rules freely accepted but absolutely binding." Thus, through movement in games, man begins to see himself not only in relation to the game but also in relation to other men. In a world of increasing "togetherness," this discovery of reasonable interaction is a necessity.

Three Levels of Interaction

In situations involving movement, it is usually possible to interact with others through play; because of the game situation, it is possible to interact on a very objective basis. Mankind is usually able to judge his peers on essentially three levels. The first is the simple biological level where acceptance or rejection is based upon appearance, association, and prejudice. The second is the action level where admiration or disapproval is based upon conduct, in spite of the biological self and the interpretation of that self. This is one step higher than the biological level since, obviously, what people do is more important than how they look. The third, and probably the highest, level of interaction is the idea level. This implies that, regardless of the impressions from the biological and conduct levels, acceptance or rejection is based upon merit of ideas. This third type of interaction is not readily achieved, but it can happen.

In group situations in physical education, it is always possible to interact with people on the action level, and sometimes interaction can be effected on the level of ideas. In a game of basketball, it is pointless for a player to decide if he approves of his opponent's appearance; skill ability and performance are the important things. It may even be possible to approach an opponent at the third level, as the player and his team attempt to interpret his strategy. The excellent program of physical education will capitalize on the situations made available through group activity.

Sport—one of the methods of utilizing human movement—also has the unique characteristic of providing a loser. In this day of emphasis on winning, the concept of an understanding loser gains a special distinction which the physical educator should comprehend, accept, and preserve. There seems to be tremendous stress placed today upon the fact that the loser must have a reward of some type, almost because he decided to risk losing. Hence, the honor roll supplements the valedictorian, and the quiz-show loser wins a Cadillac. The public is orientated toward winning and toward success, and it is increasingly difficult to accept failure and loss. America has made a cult of winning, even extending that cult to the realm of scientific discovery.

In all game activities, there must be a loser as well as a winner. How fortunate physical educators are to be able to teach the idea of losing. How good it is for a player to be able to lose a game and not find himself wanting in the loss, losing not because he was bad but because he was not as good as his opponent. Anything worth playing is worth playing well, and that usually means playing to win; yet there is nothing tragic in not being the best, and losing can verge on the wonderful. Physical education activities guarantee that this concept will always be a part of the educational pattern of the player, and the program of excellence will stress the wonder of loss as well as the splendor of victory.

Pattern of Self-Discipline

There is yet another behavioral pattern which is a concomitant of a sound physical education program—the pattern of self-discipline and dogged perseverance. Boys and girls and men and women will practice hours on a specific skill pattern in order to perfect it. A twelve-year-old has been known to shoot baskets incessantly so that he will improve in his basketball ability. No one forces him to practice; he practices because the outcomes of perfecting that particular skill seem worthwhile in his twelve-year-old society, and he will voluntarily discipline himself to achieve his goals. It would seem that this form of self-discipline might be applied to other methods of self-discovery, and it should be an intricate part of a worthwhile physical education program.

In the realm of behavior, sports demand another thing of participants—accountability. There is no game unless there is a judge; there is no dance recital unless there is an audience; there is no standard for excellence of form unless there is a critic. Even when a child plays sandlot baseball, he has to designate an umpire to call the balls and strikes and determine the outs. Sport and game situations demand that the player face up to the immediate behavior with real candor. A man is accountable for his actions and, in the realm of an excellent physical education program, judgment of the action is just. When the consequences of behavior are avoided by ruse, cheating occurs. It is the job of physical educators to insist upon integrity of purpose.

Movement also makes possible the opportunity to express oneself in a nonverbal context. This is adventure outside the linguistic limits of the usual social interpretations of intelligence. Many people can *do* better than they can articulate. The self-expression of the dancer, the diver, the skater, the fencer, the fullback, and the gymnast is a form of adventuring with the personality which enriches the individual and makes a unique contribution to the heritage of society.

In keynoting the contributions of a physical education program of excellence to the physical, psychological, and social aspects of personality discovery in education, it would be amiss to overlook the spiritual emphasis that human self-movement encourages. Matthias pointed out that "to carry on bodily activities without experiencing the stirring of one's soul is really quite impossible." This is certainly true in the attainment of certain movement patterns. The sheer wonder of reshaping human clay, the grandeur of the coordinated body executing a leap, the divinity of team effort, the awe of psychophysical patterns, and the salvation of human understandings—these are the spiritual aspects of mobility; these are stirrers of the soul.

Concurrently with any excellent program of physical education for the typical student runs an adapted program for the atypical. Such a program takes into account the special nature, needs, and desires of the atypical and once again, allowing for individual differences, seeks to take that individual from where he is and help him realize what he may become. An adaptive program is expensive and takes special understanding, but it is as essential to excellence as a program for the typical. With some adaption, it will accomplish the same ends, plus specific therapy in certain individual instances.

Although the challenge for excellence with the program of physical education is centered mainly in schools, there is a real need for sound physical education programs for the postschool group. The purpose of these programs should be different from that of recreation programs utilizing similar activities. The community may sponsor the program, but educators should administer it and continual progress in individual education through human self-movement should be realized. High school graduation should not herald the end of organized education for anyone.

Adequate Facilities and Faculty

Naturally, excellence of a physical education program can be fostered only if the facilities are adequate and the teaching is superior. With the tremendous increase in students clamoring for more and more educational opportunities, the large spaces needed by physical educators are going to be eyed carefully with a view toward building upon playing fields and compartmentalizing gymnasiums or making them into multipurpose rooms. Administrators will be convinced that adequate physical education facilities are needed only as they are convinced that the physical education program is meaningful in the total educational picture and that the teachers of physical education are committed to a well-rounded educational opportunity for all. Physical educators must make a good case for the constant use of their own facilities, and this will require more careful planning of schedules. If, with juggling, one heavily scheduled field could do the work of two, this consideration should become a part of the physical educator's thinking. Adequate facilities do not always mean quantity, but rather selectivity and quality.

In the selection of the excellent teacher, there is no room for anything less than the best. Teachers of physical education should come from accredited colleges where their teacher-preparation emphasized the scientific bases of physical education and stressed a liberal arts background. They must be intelligent, articulate, intellectual persons who have a concern for the totality of the individual and can see the range of physical education in the total educational field.

Unfortunately, good physical educators are too often people who express themselves best through movement and, hence, are not articulate in their field. An excellent program of physical education needs as its champion a person who can communicate with the other disciplines and interpret physical education to the academicians. Physical education has produced too many teachers who were fascinated with their own speciality and did a good job but who were unable to communicate with their academic peers. This dilemma can be solved as superior schools turn out young teachers who believe in the challenge of excellence for their specific subject matter, which concerns the movement of man.

As physical education does its part in passing on the heritage of the race and providing the framework for the acquisition of skills and attitudes which will foster new knowledges, insights, and relationships, it will transcend mediocrity and emerge into an era of excellence. The challenge is immediate. Not to accept it means educational death. Physical educators have never turned their backs to a difficult task. They surely will accept this challenge to excellence.

part 4

Recreation

H. DAN CORBIN

13

Education for Leisure

Many forces account for the increased leisure of today's vast majority of citizens. Life expectancy has been extended until "three score and ten" is now an actuality. Although the total population has doubled since 1900, those 65 years of age and over have quadrupled. Gerontology has contributed more vigor to the average person's later years to keep pace with a longer life expectancy.

The advent of automation is ushering in an era that staggers the imagination, with prospects of fewer hours per workday and fewer workdays per week. Whether one subscribes to the imminent 30-hour week or the projected 2-day week, he stares at an awesome prospect. It can turn out to be far from an unmixed blessing; it can constitute an unbridled force of horrendous proportions.

RECREATION'S POTENTIAL

Statistically, the average person has close to 120 days of leisure per year. That makes every third day a day of leisure. In addition, the average worker has at his disposal five hours of free time daily. Proper planning of this free time can herald an era of unparalleled enrichment and well-rounded living.

Recreation can be described as an activity that reflects a free choice, is participated in during one's leisure time, and is worthwhile in its results. Among activities within its scope are music, dramatics, storytelling, arts and crafts, outdoor education, camping, aquatics, social recreation, dancing, games, athletics, and sports.

During his play experiences, a child reveals much of himself. Moreover, when children do what they are most interested in doing, they are in a most impressionable and pliable state. Consequently, a competent leader can serve as a positive force toward bringing out the best in a youth. Through close observation, he can also detect faulty behavior tendencies in their early stages and prevent their development.

In the realm of publicly supported recreation, the community school contributes to the handling of the recreational needs of all age groups. The *Dictionary of Education* defines it as "a school that is intimately connected with the life of the community, and that tries to provide for the educational needs of all in the community; sometimes serves as a center for many community activities, and utilizes community resources in improving the educational program." Whether or not a local community school exists, it is obvious that any school can enhance recreational opportunity. The American Association of School Administrators and the Educational Policies Commission have advocated for some time that public school properties be kept open for public use during after-school hours.

Recreational activities are the ingredients out of which a bountiful leisure can be realized. They are not merely "take it or leave it" outlets during one's free time; they are essential for well-rounded living. In fact, recreation is a necessity of life. As no other force in life, it can serve as a buffer against the rigors of day-to-day stresses of modern day living. Regardless of the degree of complexity in one's work, the body craves changes of rhythm, setting, and activity. The need to do what one wants to do when it suits most can have a sanative, restorative influence. It can help to neutralize the splintering effects of hurry, strain, worry, insecurity, anxiety, and "the double-quick and triple-action" pressures of an increasingly complex society.

The Need and the Danger

The more demanding, complex, and automated that productive enterprises become, the greater is the need for recreative pursuits. In fact, specialization of labor and mechanization of minute tasks accentuate the need for release from mounting pressures. Moreover, the need for restoring creativity to workers' lives is essential. Certainly, all of this takes into account the fact that true leisure is something one earns. As Margaret Mead aptly expresses it:

> Unearned leisure is something which will have to be paid for later. It comes under the heading of vice—where the pleasure comes first and the pain afterwards—instead of virtue, where the pain or work precedes the reward.[1]

Time can weigh heavily on one's hands. Some will question, with justification, whether a long workday of interesting endeavor with little if any leisure is not to be preferred to a short workday marked by a sterile array of aimless off-the-job outlets. Such indiscriminatory behavior can constitute a drain on society. In fact, civilizations have been known to topple as a consequence of vacuous interests and "drifting." This is a danger that education must recognize and challenge. To ignore its insidious nature can but result in reaping a whirlwind.

With increased mechanization and automation, the gap between work and play inevitably widens. The enervating experiences brought on by monotonous tasks and minute contributions toward the finished product require compensatory recreational experiences. Recreation becomes a prime necessity amid the monumental pressures of day-to-day living with the attendant frustrations, conflicts, and anxieties which contribute toward an alarming toll in mental illness. The release to be experienced from wholesome recreational outlets and the exhilarating effects of lifelong hobbies can contribute toward a more relaxed and healthy citizenry.

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[1] Mead, Margaret. "The Pattern of Leisure in Contemporary American Culture." *Annals of the American Academy of Political and Social Science* 313: 11; September 1957.

Recreation has enough merit without therapeutic adjuncts. It can result in more dedicated and productive vocational effort because it serves as a restorative or means of re-creation after the strains and stresses of gainful employment. The change of pace and diversions can constitute a stimulating force for more zestful and enriched living.

The need for adding meaning and purpose to day-to-day living is not only a desirable concomitant but a virtual necessity. Certainly, one's *raison d'être* includes the perpetuation of the species, the earning of a livelihood, and—if possible—contribution toward the welfare of society. The danger of overemphasizing the material things in life to the exclusion of those which nurture the spirit by creative endeavor poses a challenge to civilization. Mumford describes this danger when he says:

> Civilization begins by a magnificent materialization of human purpose; it ends in a purposeless materialism. An empty triumph, which revolts even the self that created it. The sudden evaporation of meaning and value in a civilization, often at the moment when it seems at its height, has long been one of the enigmas of history. We face it again in our own time.[2]

The United States resident is possessor of more leisure time than his counterpart elsewhere in the family of nations. He is also a record consumer of products and services that aid him in his quest for the satisfactory use of these nonworking hours and days. Estimates of expenditures for this purpose hover around $40 billion. This is 8 percent of the gross national product—a very substantial slice. It becomes patently clear that intelligent use of so great a portion of one's waking hours and income should not be left to chance. Specialized instruction should be a part of the school curriculum.

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[2] Mumford, Lewis. *The Transformation of Man.* New York: Harper and Brothers, 1956. p. 69.

CHARACTERISTICS OF THE SIXTIES

By no means has technological advancement proved an unequivocal blessing to society. It has brought monotony, boredom, crowded and squalid living conditions in urban areas, and frequent loss of individual identity. Moreover, the upheavals of the past, the dilemmas of the present, and the uncertainties of the future all contribute toward a state of anxiety among a significant number in society. All this is taking place at a time when values are cheapened and sex is emphasized to the point of distortion in literature, movies, television, and even the lyrics of popular tunes.

Age of Distorted Values

Indications of distorted values abound practically everywhere. A recent news release reports that a girl who merely read a commercial on television netted $30,000 from repeated playbacks of the filmed advertisement. Compare that with the salary earned by the average college president. Furthermore, less regard is being shown for the scientist who labors unobtrusively in a laboratory, the horticulturist who experiments in the garden, or the scoutmaster who invests much of his leisure toward sounder development of youth.

Age of Accelerated Change

Electronics, atom-splitting, and automation are terms heard almost daily. Certainly, the last 15 years have wrought changes that have surpassed those of the previous 50 years. What is in the offing almost defies speculation.

Modern advances portend various things to various people. For some, loss of income through job displacement is an accompanying threat. The uncertainty of whether the atom will be used to benefit man or usher in his doom is a source of great concern to others. These examples indicate, in part, the mental pressures that demand release if incalculable harm to minds and spirits is to be avoided.

Age of Violence

It is woefully apparent that people are becoming insensitive to the more refined and subtle features in the entertainment world. There is no other explanation for the tremendous increase in brutality and savagery on television and movie screens, radios, comic books, and other mass media. Los Angeles and New York studies reveal that 20 and 25 percent of television casting is spent, respectively, on crime stories and westerns.

The pronounced box-office success of such films as *On the Waterfront* and *Blackboard Jungle* is used as conclusive evidence by the movie producers that the public desires this type of entertainment. Might it not be said, more truthfully, that if the public does not get what it wants it then learns to want what it gets?

Crime comic books are possibly more serious offenders. Frederic Wertham's *Seduction of the Innocent* refers to one story with 37 pictures, 12 of which display near-rape scenes. The pinpointing of 15 vulnerable spots in man and "pictures within pictures" that are highly suggestive are among the devices employed to attract reader-interest. Literature, laden with filth, has become a $350-million-per-year industry.

Age of Viewing Instead of Doing

During his leisure hours, one relies excessively on vicarious thrills. These may take their impetus from cinema screens, radios, television, and the printed word through books, magazines, and newspapers. Then again, there is the overemphasis on watching. Twenty-two players get a good workout while many times that number sit in the stands and cheer them on to victory. While viewing has its place in the sports picture, it is all too often used as a substitute for participating.

Balanced and well-regulated living should allow one actually to experience the satisfactions of playing tennis, badminton, softball, and golf. Hiking, camping, hunting, and fishing deserve greater prominence than they are now being accorded among spare-time pursuits.

METROPOLITAN PLANNING

Most startling of all population changes will be found in the teen-age group. By 1975, it is projected there will be from 35 to 42 million; the greater figure will be more likely if present record birth rates continue. For some time, school authorities have been staring at the problems of mounting pressures brought about by increased school attendance.

A marked increase of 14 million is expected among persons in their twenties—an approximate two-thirds gain from 1955 to 1975. Similarly, the number of people between 45 and 64 will grow by almost 10 million, and those 65 and over will increase 6½ million from slightly more than 14 million to 20.7 million over this 20-year period.

This nation's population is expected to pass the 200 million mark by 1970. The need for more space is gradually being realized as population pressures gobble up golf courses, coastal areas, and the "elbow room" taken for granted for too long.

Need for coordinated planning by school authorities, recreation commissions, and metropolitan planners becomes even more pressing. A spread of the great "megopolis" along the East Coast from Maine to Virginia and in other belts throughout the nation suggests many problems confronting metropolitan planners. Immediate action is required if the standard of 20 acres of regional public open space per 1000 anticipated metropolitan population is to be assured.

According to Resources for the Future, Inc., total demand for all types of outdoor recreation within the next 40 years will be approximately ten times what it is now. This takes into account the public's seemingly insatiable demand for watercourses. David Demarest Lloyd advocates doubling national expenditures for the development of land and water resources from $2.8 billion to $5.6 billion by 1970. Laurence S. Rockefeller of the Outdoor Recreation Resources Review Commission counsels a quadrupling of public open spaces. Disregard of these recommendations will yield an impoverishment of opportunities and the direst of consequences.

Prospects for the future point unmistakably toward increased leisure and residual income for recreational purposes. This trend is complicated by greater population pressures in both suburban and urban living and greater need for metropolitan planning. It is envisioned that wise planning should shape communities of optimal size kept apart by "green belts" of space in a natural setting devoted to recreational pursuits. There is an estimated current need of two million acres of park land in towns and cities for use after school or work; a total of only 750,000 acres is presently available. Similarly, the need is great for recreation areas with emphasis on state parks accessible for all-day or week-end stays.

SCHOOL-SPONSORED RECREATION

It is recognized that so vital a concern as intelligent use of leisure should not be left to chance. Discriminative behavior and rational decisions presuppose that the individual has been afforded a reasonable number of experiences in desirable appreciations, understanding attitudes, and skills. Various types of vigorous and passive activities as well as simple and creative endeavors suitable for indoor and outdoor participation can provide these experiences.

The fourth R—Recreation—should not be left to chance any more than the three R's are left to the whims of the individual. As long ago as 1918, the National Education Association pronounced "preparation for the worthy use of leisure time" as one of its Seven Cardinal Principles of Secondary Education. Understandably, the school has been charged with the responsibility of educating youth for an increased leisure that is virtually thrust upon them.

As a consequence, innumerable school systems have assumed the dual role of instructing as well as offering laboratory situations through school-sponsored recreation programs. For example, the Los Angeles Board of Education provides recreational services for youngsters and adults of all ages, all day, all year, in school facilities, under the direction of school personnel. This is pursuant to a philosophy which recognizes that the school should use its recreational environment as a practice laboratory where skills acquired in classrooms can be furthered.

School recreational planning should be part of a master plan rather than piecemeal in scope. The needs of the community should be surveyed with a long-range view in mind. Then early obsolescence and waste can be forestalled.

A joint project of the California Association for Health, Physical Education, and Recreation and the California State Department of Education, Bureau of Health, Physical Education, and Recreation was the study of the roles of public education in recreation. Committees involving some 70 people developed a report[3] in which six roles for California public schools were identified and discussed. Briefly, these six roles are:

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[3] Reprints of "The Roles of Public Education in Recreation," a report summary which appeared in the March 1960 issue of *California Schools*, are available from the California State Department of Education. The complete report may be ordered from the California Association for Health, Physical Education, and Recreation, 1705 Murchison Drive, Burlingame, California.

1. The public schools should educate for the worthy use of leisure.
2. The public schools should articulate instruction and recreation.
3. The public schools should coordinate and mobilize community resources for recreation.
4. The public schools should assume leadership in cooperative planning of recreational facilities.
5. California institutions of higher learning should conduct and encourage research studies of recreation.
6. California institutions of higher learning should offer strong professional programs in recreation, give appropriate attention to recreation in professional education courses, and assist school districts and other community agencies in selecting qualified recreation personnel.

Legislative Support for School-Sponsored Recreation

It is a widely known fact that tax sources are drying up. It is hardly conceivable that educators can long justify shutting down the greatest single investment of tax funds after 4 o'clock, over week ends, and during the summer months. Much of educational value can take place during leisure periods. To ignore their worth is to deprive countless individuals of rich learning opportunities.

The school is invariably an expensive and centrally situated facility that lends itself admirably to community-wide use. For some time, authorities have recognized that its use should be extended during out-of-school hours to adults and the aged as well as to youth. In communities which have separate recreation departments, cooperative sharing of school facilities should be encouraged at every opportunity. Likewise, the school should be permitted to reach out and use neighboring parks and recreational facilities to augment and enrich its leisure-time instructional outcomes.

Recreation under the auspices of boards of education has grown impressively in recent years. Enabling laws throughout the nation are noteworthy examples of legislation that is generous in its provisions. For example, California permits, above the educational tax limit, a 5-cent tax rate per $100 of the assessed value of property within the district to support, if required, a community recreation program. Michigan's general adult education appropriation is earmarked for expenditure through the schools for "education for recreation." The Commonwealth of Pennsylvania provides state aid for leadership with the proviso that the funds be handled by the boards of education. This stipulation has spurred on the formation of recreation boards or commissions in order to assure representation of board of education and department of recreation personnel. In this legislative climate, 70 percent of all community recreation is under school-district sponsorship.

Among cities where the board of education is responsible for recreation are Madison and Milwaukee, Wisconsin; Flint, Michigan; and Newark, New Jersey. Is it coincidental that these cities have outstanding community-wide recreational programs? It is accepted as a truism that schools quite often attract more competent personnel by virtue of the more exacting qualifications required and the more attractive salaries offered. Maximum use of existing facilities extracts more worth out of each tax dollar. Wasteful and costly duplication is avoided, and criticism and sniping are therefore forestalled. Civic pride and support take hold as a greater percentage of the community's citizenry is enlisted in the program. As a result, these communities usually contribute willingly toward advanced services, maintain their plants and facilities more effectively, and back generously the recommendations of their leaders for more extensive plans.

The School's Obligation

A recently held National Conference on School Recreation recognized the responsibility of boards of education to initiate community recreation where necessary or to cooperate with existing recreation service agencies. Any one of the following arrangements is recommended:

1. The board of education administers and conducts total community recreation programs.
2. The board of education pools its funds, facilities, and resources with another governmental agency to operate jointly a community recreation program.
3. The board of education cooperates with another governmental agency by permitting the use of school district physical facilities in programs operated by the outside agency.

School-Designing for Recreation

The added utility of the school plant for recreational purposes does not call for revolutionizing the structure, but it should enlist the alertness of all involved in planning new structures. Modern school construction plans often call for placement of the gymnasium, swimming pool, shop, home economics room, auditorium, and music room in one wing of the school plant. This arrangement facilitates the solution of problems of accessibility, supervision, heating, lighting, ease of parking, and policing. In adapting an existing plant to increased community use, a smattering of ingenuity and a well-placed gate will reduce the problems of supervision to a minimum.

Multipurpose Possibilities

School facilities, representing a larger community investment than any other tax-supported agency, are highly suitable for recreational offerings, and much school space lends itself admirably to multiple use. The following are examples:

Auditorium (concerts, talks, dramatics)
Gymnasium (sports, dancing, play days)
Library (reading, storytelling, choral reading)
Shop (handicrafts, appliance repairs, furniture building)
Art Room (sketching, painting, sculpturing)
Music or Band Room (choral groups, community band or orchestra, instrumental or vocal instruction)
Home Economics Room (cooking, baking, hat making, sewing)
Classrooms (club organization, languages, quiet play)
Cafeteria (parties, dances, teas)
Swimming Pool (swimming and boating instruction, splash parties, life saving)
Athletic Fields (games, sports, play days)
Multipurpose Room (parties, forums, get-togethers)
Laboratories (photography, developing and printing, science club)

School Curriculum and Recreation

Optimum coordination between the school's curriculum and recreation should be sought and achieved. While new subjects and relationships are to be encouraged, there are rich potentialities for recreation in what is now being taught in the average school system. The seeds of interest, enthusiasm, and curiosity can be planted for lifelong harvesting of enriched leisure.

The National Conference on School Recreation lists these opportunities for leisure-time interests and skills.

Music (appreciation, vocal, instrumental, group singing)
Dramatics (puppetry, play production, pageants, circuses)

Arts and Crafts
Fine Arts
Nature and Outing
Camping
Sports and Active Games
Rhythms and Dance
Subject-Matter Clubs (art, languages, science and mathematics, literature, journalism)
Vocation Clubs (radio and TV, invention, technical—as tools and shop)
Recreation Clubs (travel, photography, woodwork, hobbies)
Physical Efficiency Clubs (sports, dance, hiking)
Service Clubs (conservation, leader, booster, cheerleader)
School Camping
Special Events (assemblies, festivals and holidays, play days)
Social Events and Social Recreation (banquets, celebrations, parties)

The school can implement curriculum-recreation coordination by setting up a special committee to ascertain how each subject area can best contribute to leisure education. By offering varied recreational opportunities for putting into practice the skills that are taught, reinforced learning can be achieved. Intramural programs, club groups, pageants, festivals, exhibitions, displays, projects, and contests can be used to further these objectives. Moreover, recreational potentials of science, art, English, problems of democracy, and mathematics can be taught through the school camping program or the park school. The school, in addition, can weld together all community recreational resources.

New Horizons

Some basic beliefs that are pertinent to school-sponsored recreation and recreation-at-large are:

1. Leisure is growing and will continue to grow.
2. The school is where the bulk of the tax dollar is usually expended.
3. The swimming pool, gymnasium shop, home economics room, band room, athletic field, library, school camp, and classrooms are splendidly suited for recreational pursuits for all age groups. Activities can range from building sailboats to organizing clubs.
4. Many school facilities are usually unused from 4 p.m. until 11 p.m., the time when the community has the greatest need for recreational service.
5. Many of the activities taught by the school are similar to many included in the recreational program. The school can hardly afford to overlook opportunities to help students develop leisure interests and to provide areas for recreational activities. Among curricular activities closely

related to recreation are music, industrial arts, art, home economics, dramatics, and physical education.

6. The extracurricular program in the average school closely embodies the choice-exercising features of recreation.

The prospect that recreation projects for the future defies the imagination. While it is impossible to know what the future holds, these trends are unmistakable:

1. There is much evidence of all-family and all-age recreational emphases under public school auspices.
2. A growing leisure calls for greater need for such lifelong interests as horseback riding, tennis, golf, and boating.
3. Evidence is mounting that the arts, dramatics, music, and related areas are being emphasized increasingly. Involvement of schools in instructing consumers of leisure-time activities in these cultural pursuits is becoming more apparent.
4. School services in recreation will be more diversified by added emphases in the curriculum.
5. The recreation board or commission plan is gaining in acceptance throughout the nation. This is tied up with school-sponsored recreation.
6. There is a resurgence of interest in camping and outdoor living for both longer periods and short-term experiences. Grants-in-aid from state governments are becoming more common and are serving as a spur to greater progress on the part of municipalities.
7. Indoor centers and floodlighting have extended the periods during which recreation can be conducted. As a consequence, recreation has assumed day-and-night and all-year dimensions.
8. With anticipated breakthroughs in the degenerative diseases, the number of aged may boom even beyond present expectations. Development of leisure interests for old age will be of increasing importance.
9. Because of labor-saving devices, the housewife is becoming increasingly able to join the rest of her family at the recreation center.
10. Co-recreation has gained in acceptance because it offers the added advantage of a socializing experience.
11. There is increasing evidence of the certification of recreation personnel. The need is great for additional progress in this area.

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Participation in Recreational Activities

It is said that the quality of a civilization can be determined to a considerable degree by the manner in which people use their leisure time. If this is true, the nation faces a great challenge in the years immediately ahead. An ever-increasing population, the mechanization of industry, the shorter work week, longer vacations, earlier retirements, and unemployment will continue to present many problems—one of which will be the wise use of leisure time.

Leisure is not an unmixed blessing; it can produce good or evil, as court records will verify. In today's culture, man is generally unfit for too much leisure, for he has not been educated to its proper use. To be both profitable and enjoyable, leisure must be directed toward some absorbing interest that is inherently satisfying to the individual concerned. If this condition does not exist, leisure becomes an empty life of inactivity and boredom.

The public recreation program, therefore, not only must provide opportunities for recreational experiences that will meet individual desires but also must offer activities which have values related to the enrichment of life and to human welfare in general. Planners and leaders must know these values and the objectives to be attained, if the programs are to have meaning and direction. Recreation programs should be planned with as much care as is customarily exercised in planning the formal education program of the school.

Since an essential quality of recreational experience at any age is freedom of choice, inducements to participate in the program must be inherent in the planning and must be given careful thought. These necessarily include attractiveness of program content and quality of program leadership. The developmental changes with age in the individual's needs and motivations require that the play of children, the recreational pursuits of youth, and the leisure interests of adults be given separate consideration.

THE PLAY OF THE CHILD

To the child, organized recreation programs indoors and outdoors, after-school hours, on Saturdays, and during vacation periods are "playtime fun." But to those who plan and conduct these programs, they are a serious and significant contribution to the child's development. In the play of children, leaders recognize the inescapable educational quality of all experience in the formative years.

Program Objectives

The broad objectives of the out-of-school program for children of elementary school age are to help extend horizons of interest; to support and expand the teachings of home, church, and school in proper social behavior; and to provide opportunity for participation in self-chosen activities which tend to fulfill a developmental physical, mental, or emotional need of the child.

Play programs must be carefully planned and carried out to accomplish these goals. They must use the natural play impulses of children to contribute to the development of the body and the intellect, aid in the development of wholesome mental attitudes, assist in the social growth of the individual, develop inner resources, expand the personality, and guide behavior so as to develop character-building habits.

Types of Activities

The program for children in the earlier childhood period should provide opportunities for motor activity, such as running, climbing, throwing, and jumping, through simple games; creative play, such as paper construction and sand modeling; dramatic play, illustrated by storytelling; and rhythmics, exemplified by singing games and folk dancing.

The later childhood period is one of great physical activity. Much of the informal play of the earlier period is superseded by more formal games. The character of the play is more individualistic than cooperative, and the child is becoming interested in developing skills and perfecting coordination. Self-testing and individual competitive activities are popular. The program for this age level should include opportunities for all types of motor activity, low organized games and self-testing devices, instruction in certain high organized games, dramatic and imitative play, combative contests, rhythmic activities, table games, and opportunities for creative effort with cloth, leather, paint, and wood.

This is the time when children should be exposed to a wide scope and variety of activities. It is the period of exploration and experimentation, of new experiences and great curiosity.

The Leader and Inservice Education

The playleader must understand the importance of the individual child as a human being and take into consideration individual differences in needs, abilities, and interests. He must also realize the importance of the group in a group-learning situation. The particular activity, the methods of conducting it, the conditions under which it is held, and the personality of the leader are all parts of the unified experience. The respect of the individual child and the group must be won through the development of good relationships and competent leadership.

The visible portion of any public service rests upon a massive base of not-so-evident planning. This is markedly true of the playground and community center programs for children. The professional staff of most public recreation departments is limited, and part-time personnel must be recruited from among day-school teachers, college students, and persons employed in business and industry. Consequently, inservice education is needed to explain to the part-time personnel not only the *how* but also the *why* of conducting certain activities. This is usually accomplished through general meetings, special institutes, field supervision, and conferences.

For the playground season—whether it is spring, summer, fall, or winter—a preopening institute should be conducted because of the large number of persons involved. This institute should explain the function of a playground; impress upon the leader his responsibility to the community and the department; inform the worker about administrative procedures, department rules, and policies; teach games and the techniques of game instruction; and help playground personnel plan the daily and weekly play programs. During the summer, it is advisable to hold classes for leaders once a week for a 2- or 3-hour period because of the intensive program conducted during this season.

Organizing for Desired Goals

The general program is planned by the director of a department and the professional staff. This plan should provide for a wide variety of activities, based on the characteristic age periods of play, in an effort to meet the desires and needs of all children to be served. Detailed explanations are necessary because most part-time workers have little or no understanding of the age periods of play, the types of activities recommended at certain age levels, and the reasons for offering a wide variety of activities. Such part-time leaders must be helped to realize that a daily program on the playground should be planned as carefully as the daily lesson plan in the classroom. Although the child's motive for participating is fun and the purpose of the program is to provide that pleasurable experience, the leader's further objective is to make the program a teaching-learning experience.

To help the leader organize his efforts to accomplish the desired goals, daily and weekly program forms should be given to each playleader, with specifications as to the amount of time to be spent in teaching various types of activities during each morning, afternoon, and evening session. A rather common procedure is for the playleader to devote most of his time to organizing, conducting, and teaching activities to preadolescents in the morning sessions, young teen-agers in the afternoon, and the over-15 age group in the evening. Therefore, the daily program for each morning, afternoon, and evening is planned according to the age group that will receive major attention. Of course, this does not mean that other persons in attendance are forgotten or neglected. Their interests should be directed to self-sustaining activities that do not require the close attention of the leader.

Each playleader should receive a game manual. This manual should give directions for playing games and should also denote the age group to which each game has particular appeal, its suitability for boys or girls or both, the number that may participate, and its classification as an active, semi-active, or passive activity. By referring to such a manual, the playleader can plan for a well-balanced program throughout the week, including high organized games, low organized games, relays and races, athletic events, apparatus work, combative contests, singing games, quiet games, playground crafts, and sand modeling. Classes in arts and crafts, folk dancing, chess, baton twirling, and such specialized activities as nature jaunts, field trips, and camping are usually conducted by traveling specialists.

The children's indoor or community center program conducted after school and on Saturdays must be planned in the same manner as the playground program. Orientation meetings of part-time personnel should be conducted for teachers of classes in dancing, arts and crafts, tumbling, and baton twirling; those directing clubs, dramatic and musical organizations, and hobby groups; and leaders in charge of nonmembership activities, such as high organized games, table tennis, table games, and storytelling. Since the objectives of the indoor program are the same as those of the playground, the inservice education program should be similar to that for playground personnel.

Evaluation

To keep abreast of interests and changes in communities and to identify further the inservice training needs, an evaluation should be made of the program at the close of each season. A questionnaire completed by each playground leader or conductor of a community center activity should obtain the following information: games and activities which were most popular and least popular; special events which were most successful; organized classes with the greatest appeal; suggestions the leader has to improve facilities and the planned program; the success the leader had in attaining his objectives; the most difficult problems he faced; and an evaluation of the inservice education program.

These evaluations, together with a study of the attendance reports at each playground and community center by sessions and days, should assist in determining the program of operation for the next season. Such an analysis will indicate which playgrounds or centers should be closed and which programs should be expanded or curtailed. Attendance reports and recommendations based on supervisory visits by the department director and his staff help in determining the number of leaders required at a particular playground or center for the next season. Such a many-sided evaluation is necessary if the recreation department is to attain its objectives and operate efficiently and economically.

RECREATION FOR YOUTH

The period of adolescence is frequently accompanied by radical changes in the interests, desires, and behavior of the individual. This is true in his play life, and, at the close of this age period, the adolescent will have discarded most of the activities he engaged in during childhood. Only those recreational pursuits which proved very satisfying will be retained. This is one reason why a child should be exposed to a great variety of play activities during childhood—to broaden his range of selection.

Adolescence is the period of self-assertion and the struggle for independence, the time when boys and girls discover the opposite sex. Adolescents possess a strong desire for group association; they want to belong, to be accepted socially, and to be recognized for their own accomplishments. Adolescence is the age when physical and emotional maturity begins to develop, when boys and girls start to assume some degree of responsibility and learn the value of cooperative effort to achieve a common goal.

Program Objectives

Aware of the importance of teen-agers' normal need for recreational opportunities during out-of-school hours, the public recreation department offers programs which supplement the classroom, intramural, and cocurricular activities sponsored by the school and also stimulate interest in new areas. By word and example, recreation leaders of this age group attempt to help these young people make wholesome progress in the transition from child-type play and social behavior to more mature kinds of recreation and manners.

To attain these objectives, youth programs must be carefully planned and skillfully conducted. There must be opportunities for improving skills, for individual, dual, and team competition, and for group planning and participation in boy-and-girl group activities which will aid in the development of respectful appreciation of the opposite sex.

Types of Activities

Activity interests in this age period include competitive athletic events—team and individual, league and tournament; group programs—athletic, social, drama, music, and hobby clubs; and social events—dances and parties. Opportunities must be offered for joint participation by boys and girls in such activities as volleyball, skating, skiing, tobogganing, bowling, golf, swimming, tennis, and hiking. Classes in golf, tennis, swimming, dancing, and occasionally arts and crafts also appeal to this group.

Individuals will participate in many of these programs, but only a few of the activities will be carried over into adult life. There may be a renewed interest in some of these recreational skills at a much later time.

The Leader and Inservice Education

The leader of teen-age recreation activities needs great ingenuity and skill, a winning personality, and ability to influence people. Activities for adolescents require more promotion, organization, and guidance than does the play program for children, which is built more directly on teaching-learning experience. Some teen-age programs are self-organized; others must be promoted and developed around a common interest. In either case, the leader must be tactful in order to obtain group and individual acceptance of adult guidance and counseling. It is essential that objectives and goals be well defined and that the leader envision the methods which will accomplish the desired ends.

Youth programs draw largely on part-time personnel for leadership. While inservice education is necessary, the instruction differs from that of the children's leaders in many respects. Policies, administrative procedures, and department rules are explained, of course, but emphasis is not put on teaching methods, techniques of game instruction, and the planning of a weekly, balanced program of activities. Stress is placed instead on promotion, organization, guidance, and group work methods.

Meetings of athletic officials are scheduled to interpret rules of the games, to discuss judgment decisions, and to consider ways of handling participants. Leaders of groups should be instructed in how to promote interest in an activity, how to organize, and how to involve persons in establishing and attaining goals. The fact should be emphasized that the leader is a resource person to whom the participants look for guidance. It should also be pointed out that occasionally he will meet with negative attitudes, resentment, criticism, and even hostility, which he must accept with good grace. Mimeographed instructions and required reports of planning and progress should be fully explained.

Objectives of each activity should be discussed and outlined in detail with the leaders. Likewise, the evaluation report which will be required should receive considerable attention. Periodic meetings of these leaders will prove very beneficial to them and will contribute to the success of the program.

Evaluation

The evaluation of youth programs cannot follow the pattern of children's program evaluations. For the children, the objectives are enjoyable teaching-learning experiences, and attendance counts on the playground and at the community center are important factors in determining how much and how often an activity should be scheduled. The popularity of various activities determines, to a certain degree, the type of program offered.

In the youth programs, participants are older and most of the activities are organized on a common-interest basis, with the participants assisting in the planning. The program emphasis is not primarily one of teaching and learning but of organizing and guiding. Leaders usually have special abilities or training in the activities for which they are responsible, and objectives are more sharply defined; therefore, the evaluation is more qualitative than that of the children's program.

The purposes of evaluating programs for youth are to determine the personal and social value of the experiences to the group and to the individual, the effectiveness of leadership, methods of improving the program as a whole, the degree to which the specific objectives of the activity are realized, the degree to which a certain program relates to the general program objectives of the department, the areas of greatest interest, and the extent to which established objectives have been achieved. The evaluation may be made through participation reports, analytical reports by the leaders, observation by the supervisory staff, and participant questionnaires.

LEISURE ACTIVITIES FOR ADULTS

A public recreation department is charged with the responsibility of providing leisure-time opportunities for the entire community, including adults of all ages. It is apparent that growing municipalities must provide more playgrounds, athletic fields, swimming facilities, golf courses, tennis courts, and parks.

People residing in congested areas are seeking relief from the tensions of city living in the out-of-doors on week ends and during vacation periods. For this reason, open spaces must be acquired. The county, state, and national governments must act to preserve land and wooded areas, provide access to lakes, and acquire ocean shorelines for public use as recreation areas for families and sportsmen.

The growing demand for adult recreation opportunities is forcing recreation leaders to review the functions of their departments and revise their programs. Those who think that play is an end in itself and that programs are provided for amusement and pleasure have an outmoded viewpoint. The public recreation program must have definite objectives and purposes. It is a part of the educational program of the community.

As adults grow older, there is a tendency to forego the more active recreation activities for the more passive ones. Many persons take renewed interest in programs which their school sponsored years ago. Whatever their interests, adults are seeking wholesome, satisfactory, profitable leisure-time pursuits.

Program Objectives

Interests of adults are many and varied. The individual's choice of leisure-time activities is influenced by his occupation, physical abilities, temperament, and interests which were developed at a younger age. Usually, he is seeking relaxation, improvement in recreation skills, creative fulfillment, or social opportunities; sometimes, the motivating force is a desire for intellectual self-improvement. The planners of adult programs must provide activities to meet these objectives. In doing so, they will need to include classes of instruction.

Classes sponsored by the recreation department are informal and different from recognized formal adult education programs. It may be difficult sometimes to determine whether such an activity should be classified as recreation or education, but this differentiation is the individual's and depends principally upon his motive for participation.

The Leader

The leaders of play for children and recreation activities for youth are required to plan programs, to motivate interest in them, and to instruct or guide participants as the occasion requires. Adult programs are usually planned, promoted, and organized by the recreation department; the primary function of leaders is to instruct or officiate. Interest is self-motivated through the participant's selection of a specific activity offered.

Leadership personnel is recruited from many sources in an effort to find persons who have a thorough knowledge of the subject they are teaching, the activity they are leading, or the sport they are officiating. Day-school teachers, people from other professions, and persons employed in other pursuits provide the necessary leadership. It is true that some are not familiar with the best teaching methods, but they do possess special skills or abilities in their areas of instruction or leadership. In all cases, leaders of adult activities should have the ability to develop good rapport with their groups and promote satisfactory public relations for the department.

Types of Activities

As stated previously, adult interests and reasons for participation are many and varied. Freedom of choice is essential, and the activity must provide some element of self-discovery, self-expression, social satisfaction, or personal achievement if the individual is to be satisfied and to continue participation. Any effort at grouping adult programs according to interests and objectives is difficult and must necessarily be general.

Arts and Crafts. Among the thousands of hours spent in leisure-time pursuits, perhaps the most rewarding in terms of both immediate returns and long-term investments are those devoted to fulfilling the needs of the creative spirit through arts and crafts. Opportunity to "play" with colors, materials, designs, and ideas is very satisfying to the person whose imagination and touch are firmly caught in the thing created. Class offerings in painting and sketching, ceramics, lapidary projects, woodworking, leather tooling, metal crafts, sewing, needlecraft, weaving, and photographic art should be part of the recreation department's program. Such activities may be viewed as both recreational and educational in that, on the one hand, they involve the acquisition or increase of knowledge, appreciations, and skills and, on the other hand, provide desirable opportunities for relaxation and self-expression inherent in recreational pursuits.

Demand for opportunities to use increased leisure time profitably in self-improvement classes is growing. Many people who do not wish to enroll in classes for formal instruction in educational institutions prefer the informal atmosphere of neighborhood classes which a recreation department can provide at its community centers. That such offerings may be more educational than recreational is no reason for the recreation department to eliminate them from its program for adults. Opportunities to use "leisure for learning" certainly are a function of a public recreation department; therefore, program offerings need not be restricted to skills in arts and crafts or purely recreational activities.

Self-Improvement Classes. Self-improvement classes are organized to meet special interests. Included in this category are home and household classes in cake decorating, party foods and favors, home decorating, lawn and garden care, and holiday crafts. Offerings in first aid, civil defense, driver education, preretirement planning, everyday law, parliamentary procedure, investments, grass roots politics, and appreciation of modern art provide excellent opportunities for self-betterment and worthwhile discussions.

Sports and Games. Many adults have a desire to learn new skills in sports and games or to improve their proficiency in old ones. Opportunities for "learning for leisure" should be provided by classes in swimming, golf, tennis, badminton, archery, fly-tying, casting, and also in such social games as contract bridge and chess. Clinics should be offered to both men and women for refinement of appreciation of such popular spectator sports as baseball, football, and basketball. The organization of leagues and tournaments at the various levels of interest and ability is essential in sports and games. Facilities must be available for leisurely, friendly participation on a self-organized basis, and opportunities should be provided for those interested in wrestling, weight lifting, skating, skiing, and camping.

Drama. The pleasurable recreational values of dramatics are self-evident; the educational implications are often overlooked. The adult drama group usually brings together persons of varying ages, abilities, occupations, and economic and cultural backgrounds. The entire group should be involved in all productions —working on the stage, behind the scenes, or "out front." Back of each production is continuous work on voice projection, body control through dance, make-up, play-reading for understanding, interpretation of character, and other fundamental skills.

Selection of good plays of various types brings experience with a wide range of "good theater," which results in a broadened understanding of historical periods, literature, people and their motivations, and audiences and their appreciations. On the far side of the footlights are the spectators, who are enjoying an evening of passive recreation and profiting from the experience, in many respects, in the same way as the actors.

Music. Music is a potent force in community life, an interest most often stimulated in the schools. It has universal appeal and provides opportunities for creativity and self-expression. Its cultural value is immediately apparent. Music programs sponsored by public recreation departments are not primarily concerned with educational methods; the emphasis is placed on the pleasure and sociability of the activity. Adults choose the type of music program which permits them to participate at the level of their ability. Singing groups include opera and light opera organizations, glee clubs, choruses, and quartets. Persons who were once members of school-sponsored instrumental groups may continue this interest by joining the recreation department's symphony orchestra, band, dance band, or one of a variety of instrumental combinations.

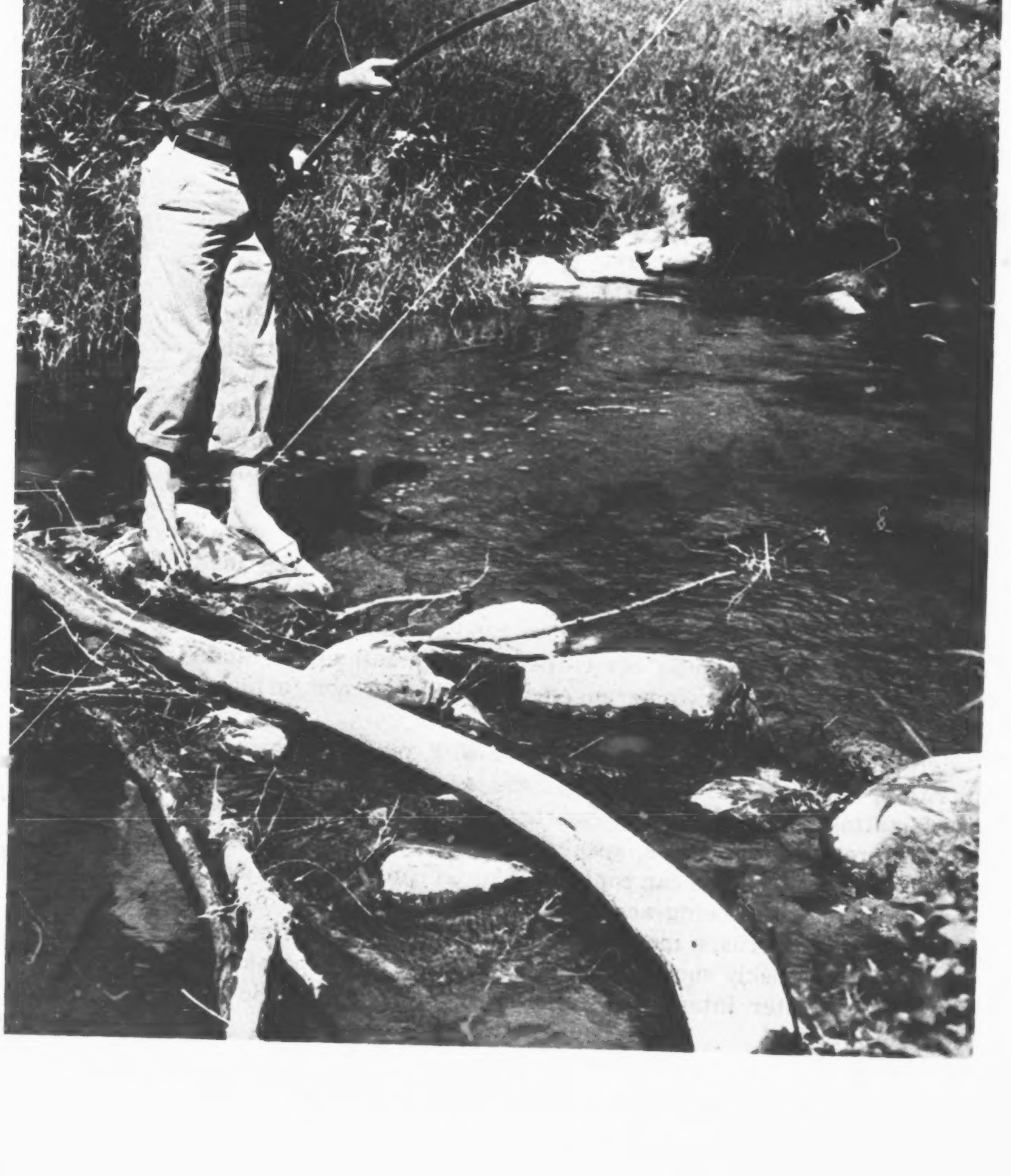
Many lovers of music choose the passive form of participation by attending orchestra, band, and choral concerts, presentations by the opera and light opera organizations, pageants, and musical contests. Others find satisfaction in joining music appreciation clubs and groups studying composition and arrangement.

Dance. The dance is a form of self-expression that has appeal for all ages. It is a valuable social activity and provides excellent group experience. Certain types, such as ballet, tap, and modern dances, offer opportunities for creativity and development of special skills. For the average adult, however, ballroom and square dances have the greatest appeal. Classes should be organized for beginning and advanced groups, according to their level of skill and interest in achievement. The ethnic folk groups—if any exist—should be encouraged, for they can contribute much to the cultural program of the community.

Golden Age Clubs. The recreation department can do much to help older persons meet some of their needs by organizing Golden Age Clubs which offer a wide variety of recreational and educational experiences. The increasing life span of a constantly growing number of men and women brings with it an ever-increasing number of people who must adjust to retirement years. Usually, these persons have not planned for their abundant leisure time. Many of them live in a single room or a small apartment. They have lost friends and companions, their physical abilities are limited, employment is impossible, and finances may be a source of worry to them. Opportunities must be created for these older persons to lead happier and more meaningful lives.

Membership in Golden Age Clubs should be limited so as to avoid the formation of cliques and to provide opportunities for all members to participate in planning and conducting club programs under the guidance of a leader. Regular meetings should afford many sociable hours for cards, table games, music, and light refreshments. Such arrangements create a comfortable sense of "belonging" to a circle of friends.

Helpful information regarding good health practices, proper nutrition, social security status, available social services, and other matters of information can be brought to Golden Age groups through films, slides, speakers, and workshops. Service projects of various kinds can contribute significantly to the members' sense of again being active participants in the life of the community. A chorus, a monthly newspaper, theater parties, an annual picnic, weekly square dances, and field trips to points of interest can foster intergroup action and widen the circle of friendship.



JULIAN W. SMITH

15

Outdoor Education

The change from a rural society to urban living and the resulting separation of large numbers of people from close contact with the land has a startling impact on youth of secondary school age. The influence of automation and the increase in skilled labor make the transition into adulthood longer and more difficult. In contrast to the family involvement in a profession or vocation to make a living, older youth, especially, experience difficulty in finding employment or even participating in the wholesome and constructive use of free time. As a result of this rapid social change in the mode of living, trouble signs are appearing —unrest, delinquency, and the participation by youth in many activities that are less worthy and often more socially unacceptable than was the case in a rural society.

To meet the demands of modern times, many advances have now been made in community educational programs. However, there is still much to be desired in the secondary school curriculum if the needs of youth are to be met in today's world.

Outdoor education can be a partial answer to some of the needs of youth. The term *outdoor education* is a broad one and, as used in this chapter, has reference to the use of the outdoors as a laboratory to supplement classroom learnings and to acquire knowledge, attitudes, and skills necessary for a wiser use of the outdoors for the enrichment of living. Outdoor education may be thus characterized as education *in* and *for* the outdoors and includes those learning activities which occur more effectively in an outdoor setting and the teaching of skills necessary for wholesome outdoor pursuits.

Outdoor education, therefore, is not another subject or discipline to be added to an already crowded secondary school curriculum. It is, rather, a sound and practical approach to the accepted objectives of secondary education through the use of the outdoor environment, resources, and facilities that are available to the school. Especially in secondary schools, which are usually departmentalized, outdoor education has important implications for many of the existing subject-matter areas and activities.

Outdoor Education in the Secondary School Curriculum

Two phases of outdoor education are significant in meeting the needs of youth. In the use of the outdoors as a laboratory, there are numerous applications to the secondary school curriculum. Many subject-matter areas and activities—science, social studies, health, physical education, language arts, vocational offerings, arts and crafts—can use outdoor settings for instruction. These include school sites; school forests, farms, and gardens; camps and parks; and other land areas and facilities. Through the use of field trips and excursions into the outdoors, students not only can find new interests in subject-matter areas but also can acquire appreciation of the physical universe and natural resources. Conservation concepts and outdoor manners are among the concomitants of such educational experiences.

While the use of the outdoors as a laboratory may not have as direct an application to health, physical education, and recreation, it is becoming more evident that secondary schools must use the team approach, with more coordination of the learning experiences in all curriculum areas. Thus, health, physical education, and recreation should be involved in outdoor education. For example, in outdoor classrooms described later, teachers of health, physical education, and recreation need to work with their colleagues in science, social studies, language arts, and other subject fields in utilizing a camp setting to provide well-integrated learning experiences relating to several curriculum areas. The same is true, in varying degrees, of other outdoor settings such as school farms and forests, day trips, and excursions.

The second phase of outdoor education applies to the skills, attitudes, and appreciations necessary for successful participation in outdoor-living pursuits. Traditionally, the teaching of motor skills and games has been assigned largely to health, physical education, and recreation. The responsibility to include more outdoor skills and sports in the curriculum rests with leaders in these fields.

Modern living challenges secondary schools to a program of action in providing curriculums to meet the need for fitness and the creative use of free time. The increased amount of time now available to millions of people for activities of their own choosing is a social phenomenon of this age. The modern paradox is that people have the time and means—but lack the knowledge and skills.

The great surge of public interest in outdoor activities should give secondary schools a clue for enriching the educational program to meet youth's needs. Consider the millions that engage annually in family camping, fishing, hunting, boating, and water activities. Many of the basic skills in these activities can, and should, be included in the school's program of health, physical education, and recreation. These individual and lifelong pursuits in which great numbers can participate can be included in the present curriculum with little difficulty, with attention to balance and progression.

The teaching of certain outdoor skills and knowledge termed education *for* the outdoors is often more clearly assigned to health, physical education, and recreation but, for effective learning, must be integrated with all related subjects. For example, the teaching of casting skills in a physical education class has a natural relationship with certain aspects of biology, especially aquatic life. Other skills, such as shooting, boating, and archery, have similar counterparts in science and social studies.

Some brief descriptions of curriculum offerings related to outdoor education will illustrate what is needed in secondary schools and will give clues as to how they may be included as integral phases of a balanced educational program.

Examples of Outdoor Education in the Curriculum

Outdoor Classrooms. In recent years, outdoor classrooms, often termed "school camping," have had widespread growth as one pattern of outdoor education. It is estimated that more than 800 school districts in the United States use camp settings as outdoor laboratories. While this development, to date, has been largely in elementary schools, there are an increasing number of secondary schools moving in this direction, especially in California and Michigan. The slower growth in secondary schools is due mainly to the administrative difficulties in a departmentalized organization.

The usual procedure in outdoor classrooms is for a classroom group and teachers to use available camp facilities for a period of school time, usually a week. Normally, the school district provides the instruction and transportation, and the home pays the cost of food and lodging. Resource leadership from local and state sources helps supplement the efforts of the regular teachers in exploring the unique learning opportunities available in the camp settings and outdoor areas.

Such educational experiences in outdoor settings have several unique contributions to make to secondary education. They provide more opportunities for youth to participate in the planning of a functional program to meet their own needs; experiences in social living; opportunities to understand personal and community health problems; work experiences on the land; and opportunities to develop interests and skills in outdoor sports and activities.

It should be pointed out that outdoor experiences for secondary school youth should be more than a repeat of an elementary school camping program. Programming in degree and kind should be geared to the needs of older youth, with more relationship to the application of classroom learning and a greater concentration of work experiences and adventuresome outdoor activities. Obviously, more student leadership and responsibility may be exercised in the entire venture, from the planning stages to the postcamp experience.

One of the great potentials related to outdoor secondary education programs that may be tied in with the school's camp program, either for a setting or as an objective, is in purposeful work experiences on the land, reminiscent of the Civilian Conservation Corps. Secondary school leaders should give serious thought to conservation-centered activities that challenge the interests and imaginations of youth while they provide new avenues of learning.

Work-learn camps embodying community service could be designed on the same principles as cooperative programs in vocational education. The Friends Work Camps, Camp Woodland Springs in Dallas, Texas, the Michigan Work-Learning Pilot Program, and Camp Palomar, San Diego, California, suggest ideas that could be incorporated in a community-school version of the CCC.[1] Many educators feel that the secondary school could and should provide these kinds of experiences for older youth rather than leave it for other agencies to assume education's responsibility in times of crisis.

School Farms, Forests, and Gardens. Many school districts now own or lease parcels of land to supplement the school site for instructional purposes. While some properties may have special purposes and be operated by school departments, such as agriculture or science, all should serve the purposes of instructional laboratory and recreation area. The school farm, for example, offers many opportunities for field experiences in science and social studies, in addition to projects in agricultural education. The forest some day may be an instructional laboratory for the entire school system and also serve as a center for teaching camping skills and outdoor sports. School gardens have great value in developing recreational appreciations and skills as well as furnishing a practical outdoor laboratory for science.

In the development and use of such school and community properties, outdoor education in its many forms can become an integral part of the secondary school program. Cooperative staff planning and inservice training will make possible maximum use of all available community resources for outdoor education. Teachers in health, physical education, and recreation have important responsibilities in planning outdoor education programs and in helping other teachers in the informal, out-of-the-classroom activities.

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[1] Thurston, Lee M. *A Work-Learn Camp for Older Youth.* Lansing, Mich.: State Department of Public Instruction, 1950.

Curriculum Areas Related to the Outdoors

Science. The possibilities for science in the outdoors are many and varied. It is probable that some biology teachers have made more effective use of the outdoors than have teachers of other subjects, but only a small percentage of the science group realize the full value in using the outdoor laboratory. In chemistry, physics, and agriculture, extensive use of the outdoors can be made for field study. Not only does this type of outdoor education enhance and enrich the science but other values accrue in developing concepts in conservation and appreciations of natural phenomena, and in acquiring skills and appreciations that have value for hobbies and free-time pursuits. This is especially true when health, physical education, and recreation are correlated whenever possible with the subject-matter areas of science.

Social Studies. Teachers of social studies, like those of science, will find many opportunities for outdoor experiences. Trips to places of historical interest and study of land use and management are examples of a vitalized social studies curriculum. There are numerous possibilities for health, physical education, and recreation to be correlated with social studies in planning for vacation trips, family camping, and outings to natural and historical sites. Preparation of food, selection of equipment, and planning for outdoor recreation activities are examples.

Language Arts. Outdoor experiences offer great possibilities for efficient and creative use of language. Real experiences in the outdoors are conducive to creating prose and poetry. One of the significant concomitants of outdoor classrooms is oral expression and the added opportunities that students have to communicate in informal outdoor situations.

Arts, Crafts, and Music. Outdoor education activities have great potential in arts, crafts, and music. Use of native materials for creative expression contributes to an appreciation and understanding of the outdoors and encourages such hobbies as carving, lapidary activities, ceramics, and cordage-making. A wealth of visual impressions is inherent in outdoor classrooms and field trips and should add new interest and greater participation in art.

Homemaking and Shop. The great interest in outdoor living offers wide opportunities for functional programs in homemaking and shop, both of which cut across a number of subject areas. Backyard cookery is an illustration. Cooking, blended with fun, contributes immeasurably to the family's venture in outdoor living. The homemaking teacher, in cooperation with those responsible for health, physical education, and recreation, can provide experiences in outdoor cookery, study proper outdoor clothing, and—with the shop teacher—explore types of shelters. These are excellent examples of how the secondary school can contribute to better family living. Shop teachers often find that their students will reflect outdoor interests in the building of boats, gun racks, and fishing shanties. The use of woods offers opportunities for outdoor hobbies and greater understanding of science and conservation.

Other Curriculum Areas. A number of other subjects would offer added examples of how outdoor education is a logical phase of a secondary school program. The important point is that outdoor education is interdepartmental and interdisciplinary in nature. It is a way of enriching present offerings and not another subject in itself.

Outdoor Skills and Sports in Secondary Schools

Casting and Angling. Casting is an important and practical activity in a secondary school program. It is a satisfying skill in itself and contributes to the pleasure and success of angling.

One way to teach casting in a secondary school is to include it as a skill activity in the physical education program. Casting is easy to teach. With a minimum amount of equipment, the activity can be initiated in all schools in a city, using teaching stations and rotating the equipment.

Another way to teach casting is through a club. Interested students and an instructor can learn the skills, participate in competitive casting, and arrange for fishing trips. Equipment may be furnished by individuals, the club, or the school.

Resource and leadership materials are available to many communities through the American Casting Association, P.O. Box

51, Nashville, Tennessee. Other sources of materials are sportsmen's clubs, community organizations, tackle companies, dealers, and interested citizens. *Casting and Angling,* a manual published by the American Association for Health, Physical Education, and Recreation, is an excellent teaching guide. Play areas, lawns, pools, and gymnasiums are adequate facilities.

Shooting and Hunting. These activities are among the most extensive outdoor pursuits as indicated by the great number of participants each year. Shooting is a satisfying sport, and such shooting games as skeet and trap are popular in most communities. Hunting, which requires good woodsmanship as well as skill in gun handling, attracts thousands of high school youth as well as their parents.

Shooting may be taught in the secondary school as a skill in physical education, or it may be organized as a club or special activity. In many communities, shooting and hunter-training programs are conducted through cooperative efforts of schools, recreation departments, and sportsmen's organizations. A good beginning may be to provide instruction prior to the opening of the hunting season. All too often the secondary schools have done little, if anything, to help prepare young hunters who, during the hunting season, take to the open spaces. This is in contrast to the large amount of time and effort devoted to the fewer numbers who participate in organized athletics.

There are resources in leadership and materials available to schools who wish to initiate shooting and hunting activities. These include: the Sportsmen's Service Bureau of the Sporting Arms and Ammunition Manufacturers' Institute, 250 East Forty-Third Street, New York, New York; the National Rifle Association, 1600 Rhode Island Avenue, N.W. Washington 6, D.C.; sportsmen's clubs; community groups; and local dealers. The AAHPER manual, *Shooting and Hunting,* will be particularly helpful to instructors. For facilities, many communities have shooting clubs, and ranges are often found or could be developed in school, college, recreation, and community agency buildings. Open spaces with safety zones are adequate for shotgun shooting. Facilities can be developed easily, and information is available from the National Rifle Association, the Sporting Arms and Ammunition Manufacturers' Institute, and the AAHPER.

Spring-type air rifles are excellent tools for teaching marksmanship and correct gun handling to young shooters, especially in later elementary grades and junior high schools. This gun is also used in high schools where range facilities are not available for .22 rifles and shotguns. Instruction in shooting can be done in classrooms, on playgrounds, in school camps, and in after-school and recreation programs. These activities provide preliminary instruction under supervision in preparation for the use of firearms for older age groups, or in situations where more extensive shooting facilities are not available. The AAHPER manual, *Marksmanship for Young Shooters,* can guide those who use the air rifle as an instructional tool. Helpful materials are also available from the Daisy Manufacturing Company, Rogers, Arkansas, through its Training Services Division.

Boating and Water Activities. The number of people participating in small-craft activities is over 40 million annually. The interest in all forms of water activity, such as skiing and skin diving, is also increasing at a high rate. The accompanying problems of regulation, law enforcement, safety, and education have created a basic need for instruction by schools, colleges, and community agencies. There are significant implications for physical education, recreation, and adult education. Some of the essential instruction could be given in classrooms and swimming pools, followed by participation in after-school and community activities. There is need to extend the teaching of swimming through a wider use of pools and nearby lakes. Some instructional units in health, physical education, and recreation, and boating clubs and clinics would help solve many of the problems connected with the use of small crafts, water skiing, and other activities. Resource materials are available from American National Red Cross, Outboard Boating Club of America, National Association of Engine and Boat Manufacturers, U. S. Power Squadrons, U. S. Coast Guard Auxiliary, local boating clubs, and other organizations concerned with small-craft and water activities.

Archery. This outdoor sport has wide appeal to increasing numbers of individuals and families, and the growth in field archery and bow hunting has been particularly rapid in the past decade. Archery should be included in school physical education and recreation programs because it has value in muscular development and is an important leisure-time activity. While target archery is being offered in many secondary school programs, there is need to broaden instruction to include field archery, archery games, bow hunting and fishing.

Winter Sports. In many sections of the country, the teaching of skiing, skating, and tobogganing would be important in a well-balanced physical education and recreation program. The establishment of ski centers, artificial ice rinks, and winter-sports areas offers opportunities for participation by all age groups in a community. Like the other outdoor education pursuits, winter sports are wholesome and vigorous and contribute to youth fitness.

Other Outdoor Living Skills. In addition to the outdoor sports suggested for secondary school programs, there are many other skills and activities worthy of mention. They include hiking, bicycling, survival skills, use of compass, mountain climbing, lapidary activities, and woodsmanship. Many of the skills involved can be taught in connection with subject-matter areas and through cocurricular activities. Opportunities for participation can be extended through community recreation and youth agency programs. Some educators now feel that a major value in outdoor education is to develop independence and initiative sufficient to cope with emergencies and catastrophes. All too often, crash programs for fitness have been initiated in times of emergency, when a sound and balanced program of health, physical education, and recreation would have been more effective.

Teacher and Leadership Preparation

Since outdoor education is an emphasis in education and a way of learning, well-prepared teachers and youth leaders should be competent to move forward in helping to provide educational experiences *in* and *for* the outdoors. Experience to date indicates, however, that inservice training is necessary and that preservice education needs some new directions. The interdisciplinary approach to teacher and leadership preparation in outdoor education is basic. Some of the promising developments relating to inservice education and preservice preparation are these:

Inservice

1. Local inservice activities in outdoor settings conducted by boards of education in cooperation with colleges, universities, state departments of education and conservation, and professional educational organizations
2. College- and university-sponsored workshops and off-campus courses at both graduate and undergraduate levels
3. Workshops and conferences sponsored by professional educational associations

4. Preparation and distribution of instructional materials and audio-visual resources by professional educational organizations, colleges and universities, state departments of education, and agencies concerned with outdoor education.

Preservice

1. Broader offerings in science and conservation, with emphasis on outdoor interpretation, and accompanied by more field experiences
2. Educational methods that stress learning techniques and approaches to teaching in informal outdoor settings
3. Skill courses and activities to include a wider variety of outdoor activities and sports
4. Student teaching and field experiences in locations where there are outdoor programs with children involved
5. Additional preparation, particularly at the graduate level, for those who plan to administer or coordinate outdoor education activities in schools. This more specialized preparation, tailored to the candidate's experience and previous training, may include child development, psychology, outdoor interpretation, conservation, guidance, sociology, arts and crafts, administration, and other special subjects as needed.

AAHPER Outdoor Education Project

While outdoor activities have been recognized in good health, physical education, and recreation programs for many years, they have not found their rightful place in the school and college curriculums in the country as a whole. Prompted by the need for leadership in teaching skills, attitudes, and appreciations for a better use and understanding of the outdoors for modern living, the American Association for Health, Physical Education, and Recreation initiated the Outdoor Education Project. Following the effective pattern in cooperative programs by business-industry-education, some of the industries that manufacture outing equipment joined with the Association in this Project, making available grants to carry forward the program. The American Fishing Tackle Manufacturers Association, the Sporting Arms and Ammunition Manufacturers' Institute (SAAMI), and the Daisy Manufacturing Company have been involved in the venture for a number of years. The Outboard Boating Club of America made possible a survey of boating instruction in a selected list of schools and colleges in the United States. More recently, through the cooperation of the Shakespeare Company, archery was added to the Project activities. Other phases of outdoor education are being emphasized by the Project, such as boating, outdoor living, and family camping.

As in other important educational programs, a great need is for dynamic leadership in schools and colleges so that the 37 million boys and girls in schools and the four million in colleges may acquire the necessary skills, attitudes, and appreciations for the intelligent use of resources and for the constructive use of leisure time. It is evident that people cannot fully enjoy and appreciate outdoor activities unless they have adequate training. These activities in outdoor living are related, with conservation and safety being integral parts. The Outdoor Education Project, therefore, is designed to intensify and speed up outdoor education programs in schools and colleges through inservice training for leaders, interpretation of the need for and nature of outdoor education activities, program development, and preparation of instructional materials.

The American Association for Health, Physical Education, and Recreation, through its staff and other resources, is carrying forward the Project program in cooperation with other departments of the National Education Association, the National Rifle Association, the American Casting Association, state departments of education, conservation agencies, representatives of the cooperating industries, and schools and colleges. The Project encompasses the following activities:

1. Leadership training. Regional and state workshops and clinics are conducted for school and college staff members who are interested in developing programs in their own states. Working with the Project staff, the appropriate state agencies—such as the departments of education and conservation, colleges and universities, and professional educational organizations—are involved with interested individuals in planning and executing the workshops. These training ventures combine interpretation; information about how to conduct programs of casting, shooting, camping, boating, and other activities; clinics and instructional methods; use of equipment; and preparation of materials.

2. Interpretation and information. The need for development of outdoor education programs and the Project's plan of operation are interpreted to school administrators, teachers, and other interested groups through programs, exhibits, demonstrations at conventions, and articles in educational journals. Many of these are pursued through the departmental structure of the National Education Association.

3. Instructional materials. Needs for additional instructional materials are being determined, and committees are at work preparing instructional guides and audio-visual aids.

The Outdoor Education Project, with its broad emphasis on a variety of activities, is stimulating much interest in the schools and colleges of the nation. It is believed that this is a sound venture because it stresses activities which can find their appropriate places in the curriculum and which contribute largely toward the accepted objectives of education.

Initiating Outdoor Education in Secondary Schools

The problem of initiating outdoor education in a secondary school is much like the procedure used in other phases of curriculum development. Since outdoor education is achieved by enriching present offerings through use of the outdoors and the inclusion of a variety of skills and activities necessary for successful outdoor pursuits, the major step is to make the necessary adjustments in the existing program of the secondary school. Through administrative flexibility and the inservice education of teachers, outdoor education can begin in any school. Some suggested procedures include:

1. An analysis of the existing local curriculum to determine the potential for a greater use of the outdoors in achieving the objectives of secondary education. This might be done through staff meetings, study committees representing faculty, parents, and students.
2. An inventory of community leadership, facilities, and materials available for outdoor education.
3. The appointment of an outdoor education committee, representative of all curriculum areas, to recommend a plan of approach to the administration. This plan should be based on the findings of Steps 1 and 2, and should project necessary curriculum adjustments to meet local needs. Visitations to existing programs of outdoor education and the assembling of instructional materials should be a part of the procedure.
4. Inservice activities for the staff. These should include local workshops, graduate study, and visitations to successful programs.
5. A plan of action that begins simply. Each teacher should seek to improve learning experiences relating to the outdoors in his own curriculum area. Pilot and experimental efforts, with careful evaluation, should precede new school-wide programs.
6. Extensive use of the abundant resources in outdoor education that are available in the community. Many additional services from colleges and universities, state and national agencies, and professional associations may be secured.

A Look at the Future

Outdoor education is a timely venture in secondary education. It is predicted that, by the year 2000, the number of people engaging in outdoor pursuits will be multiplied several times. This is a great challenge to schools to provide the basic instruction necessary to use natural resources wisely and enable millions of children, youth, and adults to find greater satisfaction in living. Outdoor education must be a team operation, mobilizing the efforts of those concerned with the education of youth with those who have the responsibility for managing natural resources. If schools can offer a wide variety of educational experiences which meet the needs and interests of all, community organizations and governmental agencies will need to provide facilities and leadership for wide participation in outdoor living activities. Educators, conservationists, recreation and youth leaders—working together—can make an outdoor heritage a reality for all young Americans.

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MARYHELEN VANNIER

16

Planning for Recreation in the Years Ahead

The majority of American secondary school students graduate with the knowledge that they must work in order to make a good living for themselves and to contribute toward the betterment of society. Some have carefully formulated future professional plans and will continue in school. Still others must begin making their own way financially and so will enter the working world immediately. Unfortunately, far too many of these students who are so eager to "get ahead" are almost totally unaware of the necessity of balancing work with play, and do not possess the skills necessary for doing so. Many will be unable to live to the fullest or enjoy the life they will earn for themselves. Others will play as hard as they work, rushing from one activity to another during their leisure time and finding few, if any, creative or re-creative pleasures from these hectic pursuits. Many will be content just to watch others on television or at sporting events.

There will be some secondary school graduates, however, who will be eager and joyous people—doing, taking part, and contributing. Their lives will be balanced. Their work will be followed by play that releases tensions and lessens fatigue products. These few will work well and productively because they will know how to use leisure well and creatively. Through refreshing activities, they will find socially accepted ways to express and use constructively the stored-up desires, which all people possess, to dominate, destroy, excel, acquire, and create. These fortunate ones will have received functional and meaningful educational experiences which will enable them to live happily and creatively while they are *in* school as well as when they are *out* of it. Somewhere in these rich experiences they were convinced that everyone needs to spend his leisure time in positive, beneficial ways and that all people must find time in their daily lives for refreshing recreation. Those who were potently self-motivated will continue to do on their own the things they learned in school that they should do, even though they are away from the watchful eyes and warning cries of their teachers. These few will be the truly educated ones to whom educational experiences have made a *real* difference. These will contribute to societal progress as they live with satisfaction to themselves.

Although it is true that Americans now have more leisure time than any other people in the history of the world, this is only the beginning of a rapidly expanding new age of leisure. The average wage earner now has approximately 4000 free hours a year—the equivalent of 250 full 16-hour days off from work during every 12-month period. The trend is toward the 32-hour work week and the six-week vacation period broken up into two intervals of three weeks each—one to be spent in the winter and one during the summer. Experts predict that this dream will become a reality by 1975 and that, by then, most Americans will have 308 fewer work hours than they did in 1961.

Youth who are in or leaving secondary schools today already have inherited an abundance of free time. However, this legacy is small in comparison to that which their younger brothers and sisters will receive. Also, life expectancy is predicted to be 100 for the female and 98 for the male by the end of this century—an increase of almost 30 years for women and 28 years for men over present expectations. The problem of increased leisure is minute at present in comparison to what it will be in the future, for there will be much more of it and the increased amount will directly involve far more people. Educators must recognize this problem now and work toward its solution. Furthermore, they must devise new ways to give each student in a rapidly expanding school population an understanding of the necessity for taking part in recreating activities for building or maintaining good health, and they must teach each student the necessary recreative skills for doing so.

Determining Factors for Leisure-Time Use

What one does in his leisure time may or may not be socially approved. It is considered by society to be good or bad, positive or negative, through a slow filtering process of cultural conditioning by the home, school, and church. People in widely scattered American communities take part in many different kinds of recreational activities; yet they all do things which their community has judged as right or wrong.

Other factors which determine what one does in his leisure time include geographical location, sex, age, amount and depth of education, existing opportunities, economic status, religion, race, desires, and leadership. A boy from Texas may go deer hunting with his father on Saturday, while a city boy may play touch football with others in his block. Girls will seek leisure pursuits which society has labeled "approved for girls," while boys will have somewhat more mobility and freedom in the masculine activities they want to pursue. The high school graduate may choose to see a play or hear a symphony orchestra while his much younger brothers and sisters elect to stay home to see a cartoon program on television. Some boys walk the village streets on Saturday nights and whistle at passing girls; others in a nearby city attend a dance given by a club group at a neighborhood YWCA. Some youngsters go to a particular community center during their free time because they like the leader there. Those wishing to guide youth toward positive and beneficial use of free time need to know more about *what moves youth toward* *choices,* more about the *feelings, wants, and desires* of youth. Cooperation among all who work with young people is much more effective than individual efforts in learning about those important motivations.

Leisure Patterns Among Youth

Numerous studies disclose that the majority of secondary school youth prefer active physical activities played in small groups away from home above all other types of leisure-time pursuits. Few have their "best times" at home. A study involving 796 youth from widely scattered geographical areas and economic backgrounds shows what "good time" activities these students prefer.[1]

PLACE, COMPANIONSHIP, AND ACTIVITIES CONSIDERED A "GOOD TIME" BY HIGH SCHOOL STUDENTS

	Male	*Female*
Number of cases	318	478
	Percent	*Percent*
Place		
Home	5	17
Elsewhere	95	83
Companionship		
Alone	1	1
Couple	5	3
Small group (3 to 10)	59	55
Large group (more than 10)	31	34
Activities		
Sports	73	55
Outing	26	26
Party	3	18
Excursion	9	9
Theater	9	8
Reading	2	3
Dancing	7	19
Amusements (recreation parks)	8	12
Music	2	5
Driving	2	8

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[1] Larrabee, Eric, and Meyersohn, Rolf, editors. *Mass Leisure.* Glencoe, Ill.: Free Press, 1958. p. 187.

Leisure Patterns Among Adults

Too often young married couples are neglected in organized recreation programs. In reality, this group needs outside interests and stimulating social contacts. Many seek opportunities to take part in free or inexpensive recreation, for they have assumed new financial obligations. Likewise, the majority of these young married couples, as well as those unmarried members of this age group, need to have opportunities provided for them to meet new people, for often they are newcomers to a city. Since many high school students leave their homes and move to larger cities seeking adventure, a mate, or financial gain, these youth while still in high school should learn where to go in a strange city to find positive recreational outlets, as can be found in the YWCA, YMCA, YWHA, YMHA, community centers, city recreation departments, and churches.

Adult recreation is a relatively new field, for Americans have long been bound to the false philosophy that play is only for children. Today, however, adults everywhere are coming to regard play as a necessary emotional, mental, and physical cathartic. The adult seeks more than just fun during his leisure time; he searches for activities with meaning and purpose.

No clear line of demarcation can be drawn between appropriate recreation for young and middle-aged adults. Chronological age and recreational age differ widely, with the latter depending upon physiological and psychological age as much as, if not more than, upon age in actual years. Re-creating activities themselves delay aging as well as add zest, enthusiasm, satisfaction, and meaning to one's life. Although appropriate participation for middle-aged persons may call for fewer activities or a shorter duration of them, desirable categories for young and middle-aged adults differ little.

Types of activities appealing to young and middle-aged adults may be many and varied. Among them are *physical activities* including highly popular swimming, boating, bowling, golf, tennis, hunting, and fishing, as well as winter sports, volleyball, softball, archery, and badminton; *social recreation* such as dancing, parties, and games; *dramatics* of various kinds; *music* with its performing and listening attractions; *literary* and *artistic activities* including individual and group pursuits; *table games* of considerable variety; *outdoor recreation* such as picnics, hiking, nature lore, and gardening; and *family fun.*

Leisure Patterns Among the Aged

Although few, if any, youth really think that someday *they* will be old, actually most of the present-day secondary school students will live to be elderly. Those who work will be forced to retire at a given age, and many of the women will be widows and alone. If the work of scientists, doctors, physical educators, and other professional groups continues to add years to life, educational institutions must—at each pupil's early age—teach needed leisure-time skills, interests, and attitudes so that breadth and meaning can be added to each lengthened life. Youth is the most productive time to store up many rich recreative skills from which to reap rich dividends from this treasure in the time of old age.

Providing stimulating activities for the aged is an educational and community responsibility. School-centered recreational programs similar to those found in Los Angeles, Cleveland, and Milwaukee can be set up for the benefit of all citizens. Secondary school youth could work as junior leaders in such a program, thus bringing their enthusiasm for life to the aged and gaining, in return, life-shaping values from these senior citizens.

Leisure activities which appeal to older people include: card playing; table games such as checkers, chess, and billiards; outdoor games such as croquet, archery, shuffleboard, bowling on the green, and horseshoes; dancing; crafts of many kinds; classes in a wide range of subjects including jewelry making, dramatics, music, literature, history, and current events; any hobby which may interest several persons; picnics and parties; service projects such as sewing, toy making, and bandage making; and the visual media of films, slides, and pictures which can bring both information and recreation.

Junior leaders need knowledge of techniques to work successfully with the aged. Here are some suggestions:

1. Realize that the best initial approach is through fellowship and service. Organize clubs around hobby interests and service projects.
2. Use volunteer leaders from the group or elderly persons of the same age from outside the group.
3. Plan a program with officers whom the group elects so that the group serves itself.
4. Develop new hobbies that are easy and inexpensive. (More than 70 percent of all people over 65 live on investments, savings, pensions, charity, or family support.)
5. Arrange for transportation to and from the meeting place.

6. Provide opportunities for each person to take part in organized recreation as well as in leisure-time activities of his own choice (for example, repairing toys and reading a magazine, both done at the meeting place).
7. Serve refreshments at every party and meeting if possible. Food brings much pleasure to this age group.
8. Observe all birthdays and seasonal occasions with colorful parties.
9. Help provide a recreational program for shut-ins by using volunteers from the group. Capitalize upon their desire to serve others.
10. Avoid discussions of controversial issues, such as religion, sex, education, racial prejudice, and politics.
11. Work toward health and happiness as worthy goals to be realized at any age.
12. Provide opportunities for the group to be with young people and children.
13. Give everyone a feeling that he has found real friends and that he is very much needed in the club and community.
14. Personalize the program as much as possible.

Individual Recreation in the Home Environment

Although few youth center their good times around the home, as they grow older more and more of them realize that their own home is the place in which they can find refuge for the activities they most enjoy, from puttering to creating beautiful things. Recreational knowledge, skills, and attitudes learned during adolescence significantly affect selection of recreation in the home as well as in other locales. A youth who chooses to stay home and read a good book, listen to a symphony recording, write a poem, or do other pleasurable and artistic things alone has remained an individual in a group-centered world in which he is constantly reminded to "adjust," "conform," and "join." Overemphasis upon group participation can smother and destroy individuality. Likewise, those who are happy only when they are with other people need to be reminded that a group has never created a great masterpiece of art, music, or literature. The masters in each field created alone, sharing in group activities only long enough to gain refreshment so that they could continue to work by themselves. Although group life has value, aloneness must be learned and fully appreciated too, for many of the great experiences of life come to each individual singly.

Constructive use of leisure-time activities centering around the home is fast becoming a national pastime, for increased earnings and leisure have provided millions of our citizens with both the financial means and the desire for new activities. The do-it-yourself market is currently estimated to be $6 billion a year, and this is only the beginning. Such home-centered activities include home decorating, furnishing, remodeling, gardening, and sewing.

Every youth should have several self-absorbing hobbies and be keenly interested in at least two of them by the time he leaves high school. Such spare-time pursuits should be more than passing amusements, for the best hobbies have many facets and can become increasingly more absorbing. For instance, a youth who learns to use a Brownie camera may master, as an adult, the skill to develop his own pictures.

Youth crave adventure, to be "on the go" and to get there fast. But they also seek companionship, sometimes want solitary leisure, desire to serve others, wish to create beautiful things, and hope to surpass others in some ways. Teachers of this age group have an excellent opportunity to help boys and girls develop skills beyond the novice stage in activities rich in carry-over value for leisure-time use throughout life.

Relaxation through hobbies should be included in any educational program centering around free-time use, for merely learning how to "blow off steam" through play would be forgetting that one needs to relax as well as to play.

Family Fun

It has been said that the family that plays together is the family that stays together. Increasingly, churches, agencies, and community centers are recognizing their responsibilities to provide recreation for families. Home and neighborhood parties are long cherished in the minds of children and parents.

What one does voluntarily in his own home for pleasure will depend upon how strong family ties have been made and how deeply he cares about those with whom he lives. Building family unity must begin early. Often it can develop around shared work activities, such as preparation of the Thanksgiving Day dinner. Increasingly, family groups are taking vacations together, traveling long distances in a car and camping out along the way. A youth fortunate enough to belong to a closely-knit family group will be more apt to pattern his own adult and family life after that which he enjoyed and appreciated when a youngster, spending much of his leisure time in his own home. Likewise, those who were encouraged to "make" their own fun as children will be more apt to continue to do so as adults. Such fortunate ones will not always need to be with people of their own age; they will cherish the pleasures which can make one be wonderfully happy, either alone or in a family group.

Family members should develop bonds of unity through play. Some community centers, churches, schools, and recreation departments provide a game library. Cards, checkers, balls, and other kinds of equipment may be checked out overnight for a family party or evening of fun at home and be returned the next day. This not only is ideal publicity for such an institution but also helps draw many more people of varying age into an organized program. Unfortunately, agencies—including the school—too often decry "spectatoritis" and the misuse of leisure time and too rarely make their buildings and equipment available when the majority of people have free time in which to use them. Luckily, this mispractice is gradually disappearing in our better school systems.

Encouraging family recreation and teaching information and abilities necessary for it are appropriate and important functions of the secondary school and of any agency or institution concerned with recreation. Camping, boating, skiing, yard and neighborhood activities, table games, various hobbies, parties, reading and discussing, and music are among the many recreational activities which can unite families.

Home-Centered Recreation for Larger Groups

In spite of the many recreational opportunities found in most communities today, the home is increasingly becoming the nation's chief recreation center. The modern dwelling is more than just a place to eat and sleep or hang a hat, for it now frequently contains a family room, a den, indoor and outdoor patios, a workshop, an outdoor fireplace surrounded by a rustic dining table and benches, a backyard playground for younger children, and even a private swimming pool. Increasingly, apartment dwellers in many major cities can enjoy these commonly shared luxuries too.

Although it is true that organized recreation programs tend to draw youth as well as adults away from their homes, the most progressive and functionally organized recreation departments are now providing increased opportunities for family groups to participate together. They also teach individual family members many new recreational skills which they in turn share with their own primary group and with their neighborhood friends. Courses in home-fun activities, backyard playground contests, and publications on home-play activities have been added by many recreation departments. In some cities, "Wedocare Clubs" furnish game kits and other recreation materials, for both young and old, which can be used in homes for a family group or for neighborhood parties. Such courses, publications, and kits help build close relationships between individual families in the community and any publicly supported recreation department.

In some communities, block parties, street dances, and backyard play schools are increasing in popularity. In many localities several families now are pooling their resources and jointly buying a backyard swimming pool which can be enjoyed by people living in that neighborhood.

Many kinds of recreational activities can be used by large groups for home-centered fun. All that is needed is an interested, enthusiastic person, couple, or small group to initiate such a project, a place for the group to meet, and a minimum of equipment or facilities. Outside leadership or other types of assistance can often be obtained from the local recreation department or other agencies concerned with organized recreation.

Suggested activities which neighborhood or other groups can enjoy in a home setting include: *arts and crafts* of many kinds; *music*, both performing and listening; a variety of *social activities* including cookouts, card games, dancing, and parties; *drama*, both performing and viewing; many *physical activities* such as archery, badminton, croquet, horseshoes, tennis and table tennis, and volleyball; and the *intellectual pursuits* of book clubs and discussion and study groups.

Responsibility for Improving Community Recreation

The well-educated individual is one who:

1. Can communicate well with others, has something of real value to say, and has command of the fundamental communicative arts
2. Knows how to live abundantly—and does—by using his whole self well as a child, youth, adult, and aged citizen
3. Can make his own living by doing the things which to him bring satisfaction
4. Works to solve his own personal problems and is actively engaged in helping to solve the bigger problems of society.

As John Donne, the poet, wrote several centuries ago, "No man is an Island, entire of its self; every man is a piece of the Continent, a part of the Maine." No fully functioning democratic citizen could ever be content with merely finding his own happiness and well-being, for he must be genuinely concerned about the welfare of others.

Those who graduate from secondary schools should be well aware of the value of recreation in their own lives and be skilled and knowledgeable enough to assist in starting an organized recreation program in a church, community, or neighborhood. The many available sources of outside help include the American Association for Health, Physical Education, and Recreation, National Recreation Association, American Recreation Society, and nationally known youth-serving organizations such as the Boy and Girl Scouts, YWCA and YMCA, and Camp Fire Girls. Requests for assistance may also be directed to known leaders in the field or to state colleges and universities.

Enthusiastic individuals who desire to develop a recreation program should first form a planning group composed of already recognized leaders. On the community level, these leaders usually include the mayor, school principal, a respected and popular teacher, and a minister. Often this initial group will profit from seeing and discussing the films *Playtown, U.S.A.* and *Leaders for Leisure,* both available from The Athletic Institute. Next, the group might create wider interest by an open community meeting. The planning group could next appoint several committees: one which will conduct a recreation survey of existing problems and available facilities; one which will draw up basic principles upon which a program will later be built (such as "equal opportunity to participate should exist for all ages and both sexes"); and one to find and secure a trained recreation leader to be in charge of planning the program and securing and training volunteer assistants. Although the over-all program should be primarily the responsibility of the recreation executive, no one person can or should be in charge of conducting the major part of the whole program. Volunteer talent should be found and utilized. Also, it is usually wise to build gradually toward obtaining the desired goal of providing a good recreation program for all people on a year-round basis. Some communities have found from experience that most of their success toward reaching their desired goal has come slowly, but surely.

It has often been said that the quality of any civilization is determined largely by how its people use their leisure, whether in constructive or destructive ways. The modern school has a definite and major role to play in helping to improve the civilization of which it is a part. If this educational institution is to raise the level of society and of value concepts and appreciations, then it must prepare its students—regardless of where they are on the academic ladder—for a life which will be spent today and tomorrow in leisure as well as in labor. The basic aim of any educational program should be to teach students how to live, not merely how to make a living.

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CATHERINE L. ALLEN

17

Challenge to Excellence

RECREATION

From the dim archives of history, Epictetus speaks with revealing candor for his times and with equally profound import for our purposes now: "One who desires to excel should endeavor it only in those things that are themselves excellent." Indeed, these words are a prophetic philosophy in which recreation must, in part, be reconceived for each one of us. Its formula must contain the quality quotient of excellence, if life is to possess genuinely re-creating interims which balance out the demanding pace and problems of human destiny today.

Excellence may be the clearly drawn target of the competency drive; it may be the approachable image of perfection which sustains and renews effort; it may represent the utmost reach of peak performance. But if excellence is to characterize the personal experience each seeks and finds rewarding in recreation, it must in its integral form first hold a significant promise for him who seeks it.

Recreation, a Re-creative Essential

We have long been concerned about excellence of skill, of performance, and of achievement, but we have been complacent—if not oblivious—to attributes explicit in that which we "endeavor." This is not to say that achievement or performance is not enhanced by excellence at every stage, but it does say that in recreation the *excellence of choice* undergirds all values which accrue. If leisure is, therefore, to afford an enduring continuity of sane, stabilizing, freeing, creative living, each must discern and respect his hierarchy of tastes and regenerating pursuits. Each must eventuate a personal equation which re-creates.

Our world dares not permit synthetics in education, in technology, in science, in human relations, in recreation. For example, we are even now frowning upon slovenly speech, the shallow fable, the misrepresented fact, as the need for penetrating ideas—well-spoken and dramatically interpreted—demands that our finest influences be communicated to humanity and to societies. This would lead us to question whether "recreation" should not become in title, in truth, and in impact "re-creation"—the re-creation of the spirit, health, and well-being of Man in evolving creative thoughts, adventures, acts, and crafts to which leisure offers new scope and ingenuity.

This may relegate to oblivion, or at least require enlightened refurbishing of, the small black bag of tricks— a few songs and dances, some games, stunts, and crafts, stereotyped carbon-copied techniques of leadership, after-school and summer plans for the young only. True, with these materials and methods and an enthusiastic approach, we gave impetus to programs remarkably broad in offering and opportunity, though training and resources were limited in the extreme.

Historically, recreation has played a mighty role in the lives of all peoples from the earliest primitive games, ceremonials, dances, and music through the rise and fall of the play traditions and the folk and cultural achievements of the Dark Ages, the Renaissance, the Reformation, the adventurous Colonial era, and the nineteenth century of significant social emergence. It has acquired many concretions in the wars, depressions, and uncertain peace of the twentieth century.

The capsules of nationalism depicted in our traditional histories fail to reproduce or recognize the parallel saga of recreation in the homes, churches, schools, and communities. Yet these remind us of the fundamental relationships of work and leisure, cultural survival and spiritual rebirth, human nurture and fulfillment, as we witness the new Israel redirecting its destiny as a nation, restoring the dances, crafts, songs of its people, coming alive in new definitive ballads, folk dances, choreography, family and community group activities, arts and crafts—the re-creative renewal of a people going forth to meet and to fulfill an enduring faith in the meaning of life, together. Or, as we see revealed in the folk dance and song of second-generation Greek citizens in America, a reanimation and renewing of heart-warming bonds with the traditions and devotions of those whose birth and faith were Greece.

The quintessence of society is the achievement of the community of Man carried forward in the sense of mission and creative challenge inherent in every human being, and revitalizing each by the freedom to give and receive in his own measure. This excellence of recreation, as Aristotle would say, enables Man to complete himself in a community in which is provided not only the "good life" but the condition for the realization of the fullest potential of each and the ultimate realization of "humanity." This "humanity" is the part that recreation has truly played, but, in an effort to simplify it and to make it concrete, it has been reduced to its synthetic parts, to superficial glamor and commercialization, to smallness in concept and circumscribed opportunity.

Leisure Time, a Trusteeship

Our times challenge recreation to the rediscovery and concrete testing of vital human resources in an automated society in which precision performance denies much of adventure and creativity. The freedoms of Man himself are incarnate in the personal trusteeship of leisure time, the more so as public events depress and outrage us. In the true essence of recreation, each possesses the option of choices, enjoys the democratic privilege of decision, accepts the consequences whether favorable or disadvantageous. Each can experience the full proportions of his own greatness to the degree that he wills to know it. Recreation teachers and leaders face this challenge of excellence, opening the possibilities of such emancipation, as important as education—in fact, education's estimable ally—in expressive self-hood.

Can the wisdom of creativity be imparted? Can the knowledge of leisure pursuits and skills be packaged in conditions which also transpose excellence of taste, the ideal of performance, the marshaling of preferred stocks of recreative investments? What are these conditions? How can we promote the climate which shall inculcate new understandings of self-responsibility for recreation, the high reaches of spirit in it and endeavor toward it, by which an individual knowingly uplifts and recreates his mental, spiritual, social, and physical well-being?

Recreation must be of intrinsic value to humanity. It must refine, refresh, re-create the human spirit.

What is basic and valid and timeless in the present recreation philosophy? What is worth perpetuating? What is worth extending, changing, developing, as life and society extend, change, develop within and around us?

What new designs should be initiated in physical and conceptual planning, in school and community structures, in total curriculum, in teacher-education, in school-community involvement, in interpretations to persons and public, in a searching spiritual approach to creative living?

The Midcentury Declaration of Recreation Policy recognized recreation as an "instrument of liberal education and a method for the promotion of the public welfare." Rapidly changing conditions had given rise to this interpretation from a former view that recreation was primarily to provide relaxation and refreshment from toil. Inevitably, the only certainty for present and future history is change.

Individually and collectively, leaders in education and recreation have a new function—providing education for adaptation to, and yet regenerating living in, this constantly and rapidly changing world. We face present and future worlds that have little in common with the ones of our childhood. We realize that we can no longer be gradual. Some knowledges and skills, which were taken for granted and considered enduring, no longer serve well or at all. They have been changed or adapted or wisely forgotten, and this is a form of continuum beyond a future that can be envisioned today. Young people can no longer be educated in a world of stable governments, accepted national boundaries, unilanguage cultures, inbred internal affairs, traditional curriculums, and formalized societal structure. We have already been told that our educational practice is twenty years behind our best theory. Critics say that we are a generation behind current events and that, in a single hour, the multiplicity of changes can exceed the sum total of those which may have made impact on our immediate progenitors.

International Agreement on Goals

An enterprising journalist, traveling in the presently emerging countries of Africa, Asia, and the Middle East, asked national leaders, "What kind of education should today's boys and girls have for the twenty-first century?" Three goals were paramount in all replies: importance placed on scientific education, emphasis on the rapidly emerging international society, and development of moral and spiritual values.

Ben Gurion of Israel said: "We all need more emphasis on human values, more emphasis on spiritual values, not merely technology and comfort. We need to develop a sense of world community—of belonging to the great cosmic universe—perhaps unknown but nevertheless there." Nehru of India spoke of change in the wake of atomic revolution. "The thing that troubles me," he said, "is how far the human being is adapting himself to these changes. . . . What I would like to be sure of is that the human being, his mind and spirit, advance to keep pace. . . ." A professor in Beirut felt that we must excite and ignite the fine sincerity and idealism of youth. "The masses," he said, "are not moved by reason . . . but by ideas."

The goals of recreation are rooted with those of education, and "the new re-creation" should initiate and take form in the school and in the community which is its context. Today, extraordinary vision will be required, as the once entrenched pragmatism gives some ground to idealism in education and re-creation. Each has become a major public investment, and to each is attributed similarly indispensable yet distinctive roles. Realistically, modern times demand functional enrichments of the school curriculum; imaginative, adaptable facilities and equipment conducive both to learning and to activities; wise challenge and involvement of professional and volunteer leadership; interpretation of recreation to students and public with personalized applications; introduction of valid incentives and recreational experiences in successive school-age activity orientations.

The teacher, at the hub of youth energies, both acquires and communicates constantly fresh ideas, but he requires administrative and organizational freedom to function and to foster refreshing, self-motivating interests of the young. He must be free to provide insights and initiative, to interrelate ideas, knowledge, skills, and self-creative pursuits and at the same time to process qualities of leadership, of interaction, and of interpersonal relations. Development of tools and skills inherent in learning, motivation of the individual both to learn and to discern values, initiation and promotion of attitude changes necessary in the acquisition of preferred tastes, appreciations, and pursuits are as laudable and lasting influences as is the imparting of vocabularies, formulas, and principles which provide basic human competencies for vocational and social roles.

Role of Education for Recreation

Education for recreation should draw upon and stimulate intellectual attainment. It should contribute to and release the exhilarations of physical skills and efficiency of human motion. It can and should challenge to excellence all abilities and endowments. It should be designed to bring to life in succeeding generations the art, music, crafts, legends, dances, and creative dispositions which have added ethnic and cultural beauty to the human experience. It can draw upon self-values and aptitudes which are at once inspirational or therapeutic in the presence of personal needs. Who is to say whether the most vaunted treasures of the liberal arts have been the product of men's vocations or of their leisure re-creations? In any case, these are never mutually exclusive attainments, and pre-eminence cannot be granted to one alone.

Perhaps it shall be the primary role of recreation-education to liberate and activate natural human talents and productiveness which traditionally patterned educational curriculums have failed to prospect or refine in any degree proportionate to the human resources at hand or to the needs of a surviving democracy. If so, where would it begin? What can it build into the learning acquisitions which schools and society are committed to provide for the intelligent maturation of the young in a democracy?

A broad curriculum should be a constantly progressing school program designed to reveal the unique gifts, worth, and dignity of all people; to instill habits of respect for the merits of all; to broaden the range of personal awareness and interests; to influence tastes and foster shared experiences; and to teach essential knowledges, skills, and understandings for selective leisure. This would become explicit in the high school curriculum. During the freshman, sophomore, and junior years, the expansion of the arts, music, physical recreation skills, language, nature pursuits, crafts, and expression media should provide repertoire and resources. Consonant with other transitions to mature and adult pursuits, seniors should develop productively their community contacts and avenues of nurturing recreational interests, crossing the peer group boundaries into multi-age associations.

Out of this self-expression, precollege youth may also find guides and informed experience for vocational choices. Senior students in the active, earnest endeavor of service would contribute their full measure to self and to others through:

1. Interpreting the understanding and appreciation of world and folk cultures through music, movement, and the related arts in civic organizations, minority groups, recreation centers, churches, elementary schools, industries
2. Assisting others to acquire the physical skills of dance, sports, aquatics, gymnastics, camping, winter pastimes
3. Facilitating on-going study of art, music, language, and drama in community centers, nationality associations, and related agencies, organizations, and studios
4. Practicing conservation, nature study, orienteering, astronomy, and camping in the community parks, woodlands, and broad countryside.

As the school and community interrelate and interpenetrate, the educational institution—through a community curriculum—would enrich the lives of all citizens and place in ever-functioning and contributing use the school and after-school facilities, equipment, program, and leadership. A community enrichment plan would not only perpetuate the teaching of adult citizens but would in turn enlist adults in fostering the program and attract gifted and multi-experienced community members into classroom teaching—the expert fisherman, the craftsman, the drama critic, the journalist, the astronomer, the naturalist, and the homemaker all teaching in volunteer exchange of knowledge, experience, culture, service, and multi-age level associations.

The eight areas of arts and crafts, dance, music, nature and the out-of-doors, sports, games and aquatics, drama, and language have long been considered fundamental. An informal survey, polling all parts of this country and both East and West Canada, very recently produced enlightening information from colleges and universities, teacher-education and service programs, and municipal recreation departments. Survey results indicate definite trends which strongly reinforce the view of urgency in continuing emphasis in those basic eight areas and, at the same time, in advocating greater depth and diversity of interest and the need for new directions in the professional preparation of teachers.

Conditions of the modern era have set the stage for consideration of the uses of leisure and the needs innate to its intelligent use. Pilken poses the challenge: "Leisure is what you make it. It may be your greatest blessing or your greatest curse. You determine its quality and its quality determines you. In the old era, the job determined the worker. In the new era, leisure determines the man."

Survey findings can best be viewed in the light of this challenge with a recognition of the existence of a national citizenry with time for recreation, funds for recreation, the means for travel, and resources for equal cultural opportunities available to all. In the panoramic picture produced by the survey lens, it is reassuring to see that:

1. The family is reunited in camping, picnicking, and outings such as water and winter skiing, adventuring trips and sightseeing, backyard and neighborhood activities, team bowling, and co-ownership of "the boat."
2. The public has taken to the water! On rivers and lakes, streams and new waterways, young and old are rowboating, motorboating, sailing, canoeing, swimming and fishing, skin and scuba diving, and water skiing at all levels of skill. Camping is often combined with small-craft trips.
3. All ages of adventurers are enjoying the winter sports of skiing and skating, snowshoeing, iceboating, ice curling, figure skating and racing, and tobogganing.
4. Individual sports are maintaining an ever-present popularity, with some variations. Throngs are wholesomely and regularly participating in golf, badminton, and tennis; bowling and lawn bowling; archery, bow hunting, field archery; pool, billiards, table tennis; hunting and fishing; roller skating and bicycling; "a glimmer of walking"; horseback riding;

and individual activities centered in improvised and resourceful group or club organizations, and in family units.

5. Dance is generally popular. Predominant are ballroom, folk and square, and modern.
6. The arts are on the increase, as evidenced by little theatre and children's theatre groups; youth and adult symphony orchestras, recorder groups, barbershop quartets, folk singing and music appreciation clubs, dance, rhythm and jazz, crafts, and instrumental rhythm bands or more dignified instrumental organizations; and philosophical discussion groups and book clubs.
7. Self-testing reappears on individual and club bases in activities such as gymnastics, apparatus, and trampoline.
8. Adventure exists in such activities as spelunking, orienteering, and mountaineering.
9. Team sports remain a vital but smaller part of the picture through games such as volleyball, softball, and basketball.
10. And in exciting climax, the community again joins hearts and hands in events such as husking and quilting bees, festivals and pageants, and service and charitable efforts.

Broad recreational programs for all people today presuppose a dynamic, dedicated, liberally and professionally educated leadership guided and inspired by a concept which sees leisure as the opportunity for self-improvement, as the time in which the body may develop and the spirit expand. Unless they begin in the elementary schools, educators cannot hope to develop the insights and instincts for searching recreation, to open the doors to the vaster reaches of the known and unknown, to develop understandings and appreciations, to guide and counsel as they develop skills and techniques, and to instill in students and colleagues the realization that recreation must be self-motivating throughout life.

The classroom teacher, with his creativity, ingenuity, and warm proximity to the total personality of the child, has the enviable opportunity through storytelling, simple dramatics, reading and library adventure, music, drawing and painting, field trips, crafts, and the expressive and movement arts to unite the complex of mind, body, and spirit and to build a sound and enduring understanding of the relationship of all facets of the universe to the wholeness of life. His daily influence and teaching cannot but develop the skills essential to mastery and enjoyment and encourage the insights and instincts for making wise choices. It is this day-by-day association that brings to teacher and to child the realization that there are three worlds—the world of self, the world of community, and the world of nature around us.

There is, across the nation, a general and wholehearted participation in folk and square dance and folk singing in junior and senior high schools. Many of these programs were initiated in the elementary schools and continue into adult groups. The school is the one institution that can draw all persons—regardless of national, ethnic, or religious backgrounds—into a common experience. The barriers of language, customs, fears, and insecurities are minimized and ultimately recede and are forgotten through the universality of movement and music, the great levelers. The media of recreation and of possession of self are synonymous. People can move together whether or not they speak the same language. They can sing the songs of many lands if only they hum together.

The World Confederation of Organizations of the Teaching Profession (WCOTP) at the 1959 Assembly of Delegates described and defined essential steps to meet the "crucial need for all people to respect the dignity of human personality and understand and appreciate the cultures of other peoples of the world." Within the schools, education and educational administration hold the key that ensures respect and appreciation for world cultures and participation by all races and creeds in programs of value in mutual understanding.

The challenge to excellence of choice by all people of all ages will impose upon schools and communities the burden of facing squarely the tremendous problems and major alterations of point of view and policy of methods of finance, of workshop and inservice training, of curriculum reconstruction, of rescheduling, of wise use of personnel, of developing a volunteer leadership, of an exchange of teachers in the various disciplines and in the community, of evaluation and reinterpretation. But for tomorrow's world, there is the gift of universal leisure placing the heaviest responsibility on the individual who is being prepared today to make his contribution and to find his own equation of life.

We cannot accept less than the excellent. The mediocre, the average, will not suffice. David Henry says, "If leisure is not for loafing but for growing—then creativity and productivity in personal living should be our goals—intellectual and cultural activity should have their place as much as physical activity." Teachers and leaders should broaden every avenue along which students pass as they search for truth and goodness, attempt to create, discover, and enjoy beauty, and seek fellowship with others.

part **5**

Today and Tomorrow

ANN E. JEWETT
CLYDE KNAPP

18

Challenge to Excellence

HEALTH, PHYSICAL EDUCATION, RECREATION

Several authors have posed stimulating challenges to excellence in health, physical education, and recreation in preceding chapters. Are there any clear areas of agreement? Are there any recurring emphases? Perhaps a few generalizations are justified.

When considering the idea of excellence in health, physical education, and recreation, one is tempted to think in terms of the contributions of each and to consider the correlations and interrelationships among them. But this sort of thinking can lead to fragmentation and to alternating emphasis. This difficulty can be avoided if one thinks in terms of integration—the total impact of all three areas upon the lives of people. The essential integration is within the individual, as he brings experiences in health, in physical education, and in recreation to bear upon his life and his living pattern.

Do experiences in health, physical education, and recreation help the youth discover himself, realize his potential, achieve some of his ambitions, face the world and his problems realistically and as a man of action? What are the effects upon living at a high level of vitality, upon a long and rewarding life, upon a life which leisure liberates toward more rewarding patterns? Can people live in vibrant health and view health as a condition which permits and encourages that kind of life, instead of viewing health as only freedom from disease or various kinds of handicaps?

Do the three areas bring quality and happiness to personal lives? Can the secondary school fortify students to live balanced lives in which work, leisure, exercise, and rest underlie managing one's affairs for living with satisfaction and reward to himself, to his family, and to his community? Can secondary schools serve the present health, physical education, and recreation needs of all students? Can they reach forty years ahead and significantly affect the future balanced and intelligent living of each one of their present pupils as well? Can secondary schools favorably affect the lives of all their students to an approximately equal high-quality level? Can they do as well for the gifted as for the dull? Can their impact be as great upon the poor performer as it is upon the athletically gifted?

Perhaps no one will answer an unqualified "yes" to all of these questions. They must be answered affirmatively, however—at least to a considerable extent—if educators are to live up to their own potential as professionals in health, physical education, and recreation. It seems safe to say that affirmative answers to all of these questions can be given at the present time in some schools for some students, but they cannot be given for all present students for another forty years.

As one translates the implications of these various questions into programs for given schools, it is easy to get bogged down with the details of the part of health, physical education, and recreation programs for which one person or several persons might have primary responsibility. Of course such translation must be made, and one must consider the various parts. The one central aim, however, must be to move students to live in health, to live balanced lives in which work, leisure, exercise, and rest contribute toward releasing an integrated individual whose life pattern is vibrant and rewarding.

Significance of Fields Must Be Clear

Images of health, physical education, and recreation held by academicians, local and national leaders, and the total population can and should be more clear and accurate than is presently the case. For that matter, it may also be true that views of real significance and pervasive aims can and should be made more clear to professionals in their own fields of health, physical education, and recreation.

All should be aware that, basically, these fields represent general education—that is, education which is equally applicable to all persons, at least from the standpoint of mutual benefit. If a person is going to benefit from his education in these areas, his current and future living must be affected by them. Although it may be said that in some subjects or some bodies of information there is value in knowledge for the sake of the knowledge, this line of reasoning can hardly apply to health, physical education, and recreation. Educators in these areas must face squarely the fact that the real reason for being of these fields lies in their function of promoting healthful and balanced living. This means that, to be successful, experiences in these areas must produce feelings which fortify desires to "live in health and fitness." Thus it is necessary for secondary schools to provide experiences which help youth personalize and internalize their experiences. Surely group activity is needed, especially to satisfy immediate needs, but enduring results in these areas will be achieved only when there is commitment on the part of individual students.

Scientific factual knowledge has been and is being rapidly developed by the medical sciences. Educators should be facile in distinguishing between fact and opinion and between measurement and appraisal. Evidence concerning the relationship of exercise to general health continues to build, and professional educators should keep informed and be guided by the best available scientific evidence.

It is highly desirable to base actions, procedures, organization, and teaching upon scientific fact, as far as this is feasible. It also is necessary to recognize that many of the most important trends do not permit scientific analysis at the present time. How does one determine objectively whether one's style of living and one's choices are of high, medium, or low quality? As Oliver E. Byrd has said in Chapter 6, "The secret of practice is strong internal conviction plus the capacity for acting on it." Judging whether or not one's internal convictions are strong requires appraisal which must function from the scientific standpoint at a level considerably less precise than measurement. So it is necessary to introduce the factor of judgment. Professionals in these fields must be willing to use their judgment and act upon it.

Excellence of Choice

It seems undeniably true that excellence of choice is most important during this decade. Unfortunately, at the same time, excellence of choice seems to have receded in the face of too much preoccupation with material values, too much attention to self, too little concern for the common good. Perhaps it is difficult to pay too much attention to self if that attention is given to making a better person of oneself, to achieving more, to increasing quality of living, and to keeping one's health good and one's outlook and attitudes favorable. However, that is quite a different matter from attention to self from a standpoint of the answer to the question, "What is in it for me?" Perhaps many young people and some who are not so young never experienced the tremendous joy of feeling that they have been of service to others, of doing something which has high significance although it may bring no personal reward other than the satisfaction of service.

Working to develop excellence of choice and working to make health, physical education, and recreation affect the lives of present students over a long period of time, educators must face the fact that knowledge may not produce excellence of choice, that knowledge may be used for good or evil. Can youth be expected to make wise choices and to "live in health and fitness" when adults whom they respect, including their teachers, portray an unacceptance of the values and choices which they seek to encourage among boys and girls? Can anyone doubt that actions speak louder than words? If teachers would affect living, they must live in a manner consistent with the values upon which they are attempting to have secondary school youth base their present and future lives.

New Designs May Be Needed

As do most people, professionals in health, physical education, and recreation probably include a large percentage of persons who like the security of doing things as they have been doing them over the years. It is often easy to believe that there can be no better way. Who would say, however, that education is not in ferment? Who would predict that the years immediately ahead will not produce many changes in designs of instruction?

Health, physical education, and recreation all need bold attempts to improve programs and services. Perhaps considerable health instruction might be given to very large groups, while other aspects of it require small groups. Perhaps physical education can depend to a much greater extent upon homework, upon directed study and directed practice. Perhaps recreation can capitalize more upon experiences in literature and the arts. Perhaps youth can benefit immeasurably from accepting and being allowed to accept a greater amount of responsibility for their own actions, their own study, their own learning, their own affairs.

Perhaps educators must learn to use television, teaching machines, and other modern teaching aids for more effective instruction. Perhaps they must devise new aids and machines for their own unique purposes. Perhaps they must strengthen their specializations and abilities to work as team members in order to offer top-quality instruction to more students more consistently.

Perhaps new designs in educational facilities and new patterns for using them to maximum capacity are needed. Perhaps the standard 90-by-50-foot gymnasium is an indefensible habit; perhaps experimentation is required with varying shapes and sizes of facilities for physical education and recreation. Perhaps it will be necessary to forego the luxury of using large and expensive gymnasiums for 15 minutes during an hour for purposes which require students to sit and listen or which use only a part of the space and facilities. Perhaps these facilities should not be idle for 15 minutes of every hour while one group showers and gets ready for class in an academic area while another group dresses for a physical education class.

Qualified Teachers, Leaders Are Vital

Besides competence in their own fields, professionals in health, physical education, and recreation need to be big, to be positive, to avoid being defensive. They need to be high-quality members of faculties and committees which deal with various aspects of education and of schools. This same need applies to all secondary school personnel, of course. But professionals in health, physical education, and recreation seem especially prone to limit their interests exclusively to their own educational specializations. Narrow interest in one's own specialization may be defensible for a teacher whose primary contribution is not general education. For instance, a person teaching advanced science to students who are interested in pursuing that subject as a professional field may be quite justified in being interested almost exclusively in his own field. But one who teaches in health, physical education, and recreation should never lose sight of his responsibility in general education. He needs to be interested in the development of those aspects of living and those knowledges and understandings and attitudes which apply to all students and hence are so universal that they are accepted as a part of general education.

Although recreation is not a required part of the education of all, it does have import in all subjects or areas that are general education in the sense that they are offered to improve the living situation of persons, not to prepare them to make a living. Health and physical education, however, frequently are required. Perhaps they are required subjects in more schools than is any other subject except English. This situation puts teachers of health and physical education directly into the main stream. They are directly concerned with the function of the school to prepare students for living in the future as well as to provide a present situation in which they can live satisfactorily. Secondary schools urgently need many more professionals in health, physical education, and recreation who can be positive, who can take a broad look at the whole general education of youth, and who can be proud of the fact that they are in a position to teach youth things which will affect the quality of their lives.

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Future Programs

The Yearbook Commission charged individual authors of this volume with the responsibility of contributing to excellence in their professions by stressing a forward look in their discussions of various programs for secondary school youth. Presented here are additional ideas by professional leaders in the form of brief statements expressing personal viewpoints concerning future programs for secondary school youth.

These eminent leaders have provided guidance and inspiration in recent decades and continue to offer insight through writings, addresses, personal example, and creative, constructive contributions to the improvement of health education, physical education, and recreation programs.

The following statements are not summaries, since the authors had not read preceding manuscripts. They are personal statements by individuals who have helped shape present programs. They are hopes, highlights, prophecies, predictions, philosophies, proposals—and challenges—to each one of us.

BERNICE R. MOSS

Future Programs in Health Education

Education is in a state of ferment. The future programs of the schools are being forged in the white heat of controversy. The values of American life are being examined and programs for education of the young redesigned. There are those who strive but to transmit the culture of the race, and there are those who dream only of the challenges in outer space. Implicit in the maelstrom of conflicting beliefs, concepts, ideas, and programs is still the basic concern for the individual—his life, his development, his progress, his fulfillment. Each person is accorded the privilege of guiding his own destiny, making his own choices, directing his own behavior, and living a satisfying, productive, socially useful life if he so chooses.

Programs of health education, physical education, and recreation are based on these beliefs. The protection and enhancement of life are fundamental concerns. The opportunity for each person to experience increasingly effective direction of his personal behavior, to participate in developmental and satisfying activities, and to reach his potential of integrated wholeness is a shared goal of those who design programs in these important curricular areas.

Future programs in secondary education in the area of health education will reflect the changing concepts of the role of the school. In a complex, institutionalized society, the school is but one agency concerned with the health of its youth. The school has been established for educational purposes and not for purposes of health protection or improvement, except as these are related to educational objectives. The schools of tomorrow will provide less, not more, health supervision of youth, with fewer physicians, nurses, and other specialized health personnel working directly in schools to organize and provide health services. Better liaison will be maintained with public and private health services in the community in the interest of healthy adolescents. Duplication of services will be reduced by more effective community planning.

The school has need to emphasize its major responsibility *for* health in the improvement of educational programs *in* health. Helping the adolescent to know his nature and needs—biological, psychological, and social—and to be able to make intelligent choices on the basis of sound understandings is the major contribution of the secondary school to health programs. This envisions something more in the realm of curriculum planning and teaching than exists today. Health education is not an appendage of physical education or safety education or science education. It is part of the complete study of man wherein facts, concepts, and hypotheses from many areas of natural and social sciences are applied to the lives of individuals. Each youth has need to be made aware of their meaning to him as a person and thereby to gain insight into his own behavior.

Health education may be known by other names in the future. It may be effectively integrated into a variety of curricular patterns, or it may be ignored—but its need can never be denied. If man is to achieve his most cherished goals, health must be preserved, maintained, and extended. As a means to the end of helping youth in his quest for fulfillment, health education is an indispensable part of the curriculum of any school. Insightful administration, trained teachers, dedicated leaders in many disciplines can help plan, organize, and teach to this end.

W. K. STREIT

The Future of School Health Education

The very foundation of education rests upon the physical, mental, and moral health of the child. The American people have always recognized this fact and have given it lip service to a high degree. In carrying it into actual practice, however, citizens still have a long way to go. The time for action is now, and the place for improvement is where the greatest number of children can be reached.

Growing up has never been an easy process, and in today's shrinking world, it is harder than ever. The days when any child could grow up untouched by the events of the uneasy world around him have long passed. The growth and development of a child are affected by nurture as well as by nature. In relation to health education, this includes: provision of an environment which is safe and healthful; immunization against contagious disease; correction of remediable defects and adjustment to those which cannot be corrected; proper nutrition; provision of an atmosphere which fosters emotional well-being; balance in work, play, rest, and sleep; guidance to help a child make the most of his potentialities.

Naturally, this is a cooperative undertaking of the school, the home, and the community and requires better prepared personnel, time, and facilities. The solution lies in a closer, more active, more understanding, and more constructive partnership. It demands a more creative approach and more research.

Second only to parents in their responsibility to influence and direct the development of children are teachers. Understanding the pattern of growth and development of children may justifiably be regarded as a prerequisite for an alert, successful teacher. Such understanding may permit far deeper perception of the constantly fluctuating stresses and strains that make up the daily lives of growing children. Teachers must also be alert to changes caused by advances in health science. An important task is to find ways to motivate people to accept preventive measures, to be ready to change when better procedures are found.

Health depends upon a reasonable awareness of man, his surroundings, and the relationships between them. He must make certain choices. These were less difficult in a slow-moving society, but the slow paces have now changed to fantastic speeds requiring flexibility on the part of the child and man of the future. Therefore, the child will not have time to learn all things from experience. He must learn from his own ability to think and rationalize.

Fortunately, the excitement of learning is highly inspirational and gratifying for most children. But for others it is difficult and frustrating. Some are preoccupied with feelings of uncertainty, rejection, inadequacy, guilt, and futility. This whole area of mental health is receiving more attention and will receive even increasing emphasis in the years immediately ahead.

Among other areas which require attention in this decade is reduction of pressures—pressures on children at school; pressures to overemphasize competitive sports, especially in the junior high grades; pressures on administrators from all curricular areas to put more emphasis on a particular phase of education; pressures of advertising, relating to alcohol, tobacco, quackery, and health fads, which are confusing the proper values of youth; and pressures of television and movies resulting in a definite lowering of moral tone and a laxity in sex relationships.

Teacher observation is more important than ever, and the approach of teachers to healthful living is significant. Ability to work together in professional societies, schools, and departments of health as members of a team requires further implementation.

What we need is a re-emphasis of the simple truth that more important than programs are the kind of people we are, the kind of homes we provide, the interest and love we have, and the example we show. We have the tools. We need the wisdom and will to use them properly.

ELENA M. SLIEPCEVICH

Health Education in Tomorrow's Schools

The opportunity to be prophetic about the future of health education is an imperative to be imaginative, creative, and optimistic. The visible evidence of success in achieving the needed status, understanding, and recognition of health education programs is far from satisfying. And yet, fortunately, there are signs of progress reflected in the dedicated efforts of individual leaders and groups who face the future believing in the worth of school health education. This deep conviction motivates an exploration of new perspectives for this significant area of learning.

1. Health education programs will function with the support of enlightened citizens who believe that the conservation and protection of human resources are fundamental to a purposeful life

in all of its dimensions—intellectual, cultural, moral, and spiritual. Tangible evidence of this belief will be manifested in the importance this area will have in the curriculum of secondary school youth. Long overdue recognition of the fact that health education is a "life science" will be established. For what is more of a "life science" than one which is concerned with human life itself?

2. A more dynamic approach to health will permeate the programs—one that views health education beyond the preventive and maintenance concept to a more constructive and optimal state of "wellness." Informed citizens will understand that it is foolish and uneconomical to concentrate solely on intellectual development, if recipients of this training do not have a sufficient level of health to realize their fullest potentialities. Society will recognize that it cannot afford to lose able citizens in their most productive years.

3. Health educators will have become highly selective in the choice of priorities for the secondary school curriculum. Errors and weaknesses in programs will have been identified and corrected so that repetition of subject matter, trivial content, and memorization of facts will be obsolete. Program objectives will be conceived and pursued by focusing on new and emerging health problems, by revising teaching approaches so as to develop critical thinkers who are equipped with problem-solving skills, and by developing a positive point of view about good health as a way of life. How better can self-discipline in freedom of choice be developed than through the solution of health problems which confront every individual throughout life?

The effects of ionizing radiation on the biological organism, the contamination of air and water by industrial and domestic wastes, the addition of substances to food and drugs, the social and behavioral aspects of accident prevention, the origin of psychogenic disturbances, the relation of nutrition and exercise to longevity, the influence of heredity upon progeny, the health status of a shrinking world, and a comprehension of health and medical care programs—these are some emerging problems which will be highlighted in the curriculums of the future. The well-qualified individuals who give competent direction to these programs will create an environment that presents these problems not as isolated learnings but rather in an integrated context which helps the learner to see their personal, social, political, and cultural implications.

To illustrate, concern for the control and eradication of disease around the world will not be characterized by the selfish motive of self-protection but by a genuine sense of altruism. Competing with other nations for a high level of health is not, and never will be, a compelling motivation—as it may be in other areas of scientific endeavor. It will be apparent to secondary school youth that there is no room for complacency among those who live in a nation that represents only 6 percent of the world population, while 65 percent live in underdeveloped areas. This kind of awareness will stimulate thinking about the relationship that may exist between levels of health and political ideologies.

4. Concurrent with these developments will be favorable advances among those elements which are necessary for excellence in programs. Leadership will be professionally prepared in institutions that have kept pace with the changing times and new responsibilities assigned to them. The multi-disciplinary aspects of health education will be recognized. Those preparing health education personnel will recognize the necessity of learnings from the behavioral sciences as well as essential subject matter from the physical and biological sciences. Effectiveness in health education does not rest on knowledge alone but requires an awareness of personal goals, value systems, cultural patterns, and individual perceptions.

A deep and abiding dedication to excellence will be the sustaining force in programs of professional preparation. There will be no room for mediocrity. The highly qualified leaders who emerge from this experience will command academic respect by demonstrating the effectiveness and high quality of their programs. Quality programs will earn needed facilities, teaching materials, and time in the curriculum. An environment conducive to learning will be provided for health education as for other academic subjects.

These then are some visionary predictions for health education in the years ahead. Realization of them in whole or in part will require a reaffirmation of the commitment to demonstrate excellence in health education programs in order to bring to this area of learning the support and prestige which it deserves.

JESSE FEIRING WILLIAMS, M.D.

A Look into the Future

An invitation to look into the future is always interesting to one who can do nothing about the past and who has no responsibility for the present. And yet, unless one has prophetic vision, no reliable prediction can be made; I can only state my hopes.

I hope that health education will become increasingly concerned with life and living. It is not enough to present the scientific data of hygiene and sanitation in expectation that they will be practiced. On the contrary, health education in all its aspects will miss its opportunity unless teachers can arouse youth to accept and follow its precepts. There is very little value in discovering remediable defects unless they are corrected. Nothing is quite so pointless as hygienic facts that are taught and learned but not practiced. Since hygiene as knowledge is worthless unless it is lived, the basic problems in teaching are centered in motives, purposes, and goals.

Health education needs teachers who will consider their calling sacred, their goal vibrant health rather than only the prevention of disease, and themselves worthy examples for youth to imitate. Schools now require what they have seldom had—health leaders who, superbly informed in the scientific data of hygiene and the psychology of human behavior, will study anew all cultures with effective patterns of teaching people how to live and who will examine the health hazards of modern civilization and appraise the debilitating effects of industry, social customs, and prevailing personal habits. Such persons could vitalize health education and bring to youth the benefits of improved living which would transform the social life of mankind. Indeed, all efforts to improve national societies should center not in economic policies but in personal behaviors.

I hope that physical education will always be vigorous enough to ensure adequate development of the vital organic systems so that the enthusiasts for "biological objectives" will cease their ill-considered propaganda for "physical fitness"; that increasingly functional motor skills will dominate all programs and the bizarre efforts to develop strength by weight lifting, when none of its practitioners will be weight lifters, will disappear; that the joy of participation in physical activities will be ensured, both by the activities selected and by the methods of instruction, so that, over the years, physical activity will be a real part of the lives of youth and adult; and that physical education will avoid a narrow devotion to physical outcomes. The real elephant is not a fan, a rope, a tree, or a wall; and physical education is an activity of the whole person. Whether its leaders become interested in teaching the whole person or not, total effects will ensue; there always will be mental and social outcomes as well as physical ones.

Forty-one years ago, I wrote this about physical education:

> Physical education may be so conducted as to set a standard of living that will surpass the average and the commonplace. There should be in such a scheme of things something of the healthier virtues of courage, endurance, strength and also the natural attributes of play, such as imagination, joyousness, and pride. Physical education should never be satisfied with technique. It may well aim to afford an opportunity for individuals to act in situations that are physically wholesome, mentally stimulating and satisfying, and socially sound.

I still have hopes.

ELEANOR METHENY

The Focus of Physical Education

How does man view himself? How does he interpret his own nature? His views and interpretations have undergone many changes throughout the centuries, and they differ from country to country in the world today. But whatever the interpretation may be at any time or place, it determines the focus of the education men provide for their children.

Well into the beginning of the current century, man saw *mind* and *body* as two separate aspects of his own being. In the United States, formal education was focused on training the mind. What little instruction was offered in what is now called physical education was focused on the body. But as man found new insight into his own nature, his concept of the division between mind and body was gradually modified, and he began to recognize that the *whole* child went to school and could not be partitioned into mind and body. In the classroom, instruction was focused on the mental processes; on the playing fields, the emphasis was on bodily activity. However, it was recognized that both kinds of teaching were educating a whole child, even though they concentrated on different aspects of his being. In physical education, the subject matter shifted from mere exercise to games and sports and dance—activities which involved the mental and emotional processes as well as the physiological ones. Physical education was viewed as a medium through which children could be educated.

As men became increasingly aware of their own interdependence, the focus shifted again. The classroom was identified as a miniature social structure within which children learned by interacting with others in the group. And so it was, too, in physical education. Children were still taught to dance, to play games, and to participate in sports activities requiring highly coordinated bodily movements, but the methods used to help them acquire these abilities reflected awareness of man's interpretation of himself as a social being.

More recently, as man's concern for unraveling the mysteries of the physical universe has dominated his thinking, the focus of education has been directed toward methods for accelerating these discoveries, and the focus of physical education has shifted to the development of those qualities that make man physically fit to endure the rigors of such scientific explorations. But each new bit of knowledge that man uncovers about the physical properties of the universe in which he lives only intensifies his need for enlarging his understanding of his own humanness as a person in this physical universe. Beneath man's excitement about the discoveries of the physical scientists, there are signs that he is becoming increasingly aware of his need to find newer answers to the age-old personal questions: Who am I? What am I? What is the nature of this process of thought that distinguishes me from other animate beings? What makes my life meaningful to me?

As man formulates his new answers to these questions, the focus of education will shift again. Facts will still be learned and knowledge will still be sought, but the focus will be on the meanings man finds in facts and knowledge and the ways in which those meanings enhance the significance of his human life.

Are the experiences and learnings of physical education meaningful? Does man find, in his own movement experiences, meanings that enhance the significance of his human life? I believe that movement experiences are meaningful. I believe that man finds human significance in them. And so I believe that the next shift of the educational focus will serve to identify physical education for what it is—not just physical activity for the development of physical attributes, not just a medium through which education may be channeled to the whole child, not just a vehicle for experiences that facilitate interaction among children in a group, but a form of human activity that has its own potential for developing unique kinds of human meanings that are significant in their own form. I think we shall still offer the kinds of movement experiences that now make up the subject matter of physical education, but, as we enlarge our understanding of the ways in which man finds significance in his human experiences, I believe we shall also find ways to develop the significance that is inherent in these and other forms of human movement.

DELBERT OBERTEUFFER

Future Developments in Physical Education

I am convinced that physical education, as we now know it, will —and must—change its format in the next twenty years. There is room for change and for development. We have remained on dead center long enough. In fact, our principal movement recently has been retrogression. Our traditionalists have preserved well the status quo. Now we should move forward into new and unexplored areas within the total context of physical education.

This movement forward relies upon a full understanding of the word *education.* Through the media of movement, someone is educated—not trained, not merely exercised, but *educated.* His mind has been used. He has developed not just physically but socially, psychologically, totally. He has progressed in awareness of his world and of himself in it. In the future, we shall educate people by plan and design, not merely by accident as is now often the case.

Needed Program Changes

Once we understand that skill, sweat, and strength are not the only desirable outcomes of a physical education, we then can make some changes in our programs to attain others. These are some of the changes I hope we shall make:

1. We shall curtail drastically the scandalous repetition of activities now characteristic of high school programs. We shall not play basketball every year—or volleyball, or softball. We shall teach some of these things once or, at most, twice for six- or eight-week periods and free more time for other things. We cannot justify academic credit for pointless repetition of an activity from which come important but only limited values. We shall overhaul our secondary curriculum completely to eliminate unjustifiable repetition and to open space and time for new, different, and varied activities chosen in relation to demonstrated use and not just because they have always been taught.

2. With time so freed by the elimination of repetition, we can whet the appetite of our students for new and different activities by conducting "appreciation," "survey," or broadening units of study in our program. We shall talk about sports we cannot do in school. We shall pay some attention to the education of the spectator so that a sport event might become something more than an occasion to vent enthusiasm. We shall study ethical issues as they appear. We shall read books. We shall use the library. We shall use every reasonable resource available to enrich and enhance the physical education of our students. We shall make something out of consumer education in our field. We shall gain an appreciation of movement in relation to man. We shall give thought to health relationships, conditioning, self-development, prevention of emotional disturbances. We shall give high school people a chance to understand what physical education really is and not shortchange them with the narrow concept of sweat and strength through exercise. There is much room for imaginative development here.

3. Similarly, with some of the time freed by reducing softball and its companions from 6 years to 2, we shall find time for an occasional integrated study. Perhaps we shall take 12 weeks of the eleventh grade to deal with large projects in the pattern of core studies in an integrated curriculum. We may spend some time studying "Recreation in Our Town" or "Sportsmanship" or "The International Aspects of Sport." An imaginative class with an imaginative teacher will find fascinating opportunities for extending physical education beyond the ordinary and traditional in the pursuit of these new designs in curriculum building. There is room for this sort of thing in spite of the anguished protestations of those whose scope is limited by tradition.

4. There will be other developments. The physical education teacher will make our resources available to others as they develop their core or integrated studies. We shall then facilitate understanding by others of the true potential within physical education, and we shall remove ourselves from the lonely quarantine which is now largely our lot in the education family.

5. We shall become more effective than we are now in the area of assistance to people with problems. The psychologically disturbed, the physically handicapped, the "fringer," the rejected, the child in need of guidance and counseling will find us increasingly cooperative and able to work with others in supplying assistance.

A Physical Education

But mainly, and in general, we shall broaden our understanding of the nature of the human organism and its needs. We shall help the youngster in high school prepare for a lifetime of participation. His future will concern us. When we see millions of the adult population participating not at all in activity, we shall be concerned enough to determine the reasons. Then we shall come to understand how imperative it is that we alter our secondary school programs to make them more educational and thus more valuable. We shall grow up—slowly, perhaps, but surely. We shall cast off some of our traditional and sentimental notions of what physical education should be and begin to talk more confidently about the nature of a physical education. There is a difference. The future may point it up.

ROSALIND CASSIDY

Minimum Essentials for Physical Education in 1975

In order to see direction in the development of future physical education programs, we must identify crucial areas of present and future need. We must sharpen the definition of our particular educational tools and redirect our programs to assure, at least, the essential contributions to be made by physical education to the development of each individual.

We already know that the continuing advance of technology and automation will provide more leisure for more people. We know that the rapidity of change, the exploration of outer space, the place of our country in the world society, and the threats to our democratic philosophy will put a continuing stress upon Americans in an uneasy world.

Provision for Leisure Needs

What does the fact of increasing leisure mean? A four-day work week is already predicted for many people, and there will be less vigorous activity on the job. Since work always has been a great value in American life, a readiness for productive leisure represents a revolution in man's concepts of work and play and in his very ends for living.

These facts make it necessary to reassess our current programs at each level to provide school learnings that will be used in out-of-school sport and dance activities. Youth will be helped to be successful in these movement experiences and thus will acquire hungers and skills in movement patterns that will provide a drive for continuing movement experiences throughout life.

At the upper school levels, instruction in individual sports such as tennis and golf should be available and given a larger proportion of time in the student's schedule than that given to team sports. Swimming should be available at all age levels. Social dancing and folk dancing are essentials. Instruction in camping, hiking, fishing, boating, surfing, and skiing skills must be included in the school program. Community resources should be studied and used to supplement school resources. We must plan for a continuing program of physical education beyond school, throughout the adult years, to meet changing interests and leisure needs.

We are obligated to free students to explore new activity patterns, to be creative in expressive play. We need to develop school-wide teaching teams in order to relate aspects of the arts and sciences to human movement possibilities.

Today's Anxiety Culture

We know that the period ahead will be one of exploration of outer space. We know that man must face the unknown and the fearful and that the human body and human sanity must survive unknown stresses. We know we are in an age of unprecedented rapidity of change, holding great promise as well as great threat.

We now know that we must learn to live, either productively or with the possibility of total destruction, in a world where atomic power and superspeed in communication make either possible. These facts of our life now, which promise to continue and become even more intense in the future, result in much that is unknown, much that engenders fear, anxiety, and threat. These factors make for a dangerous new world causing a revolution in human relations. This anxiety culture that we are in, and are going to continue to be in, also comes from world-wide economic, political, and scientific competition now made even more complex by unknown factors, in the sense of individual needs, individual security, individual significance posed by the rising peoples of Asia and Africa. What clues for program redirection are found in these facts of our present and future life?

Resources for Meeting Stress

Movement is central to learning, to experiencing and expressing, to the very achievement of self-identity and self-security. We should be providing, from infancy on, a wide range of successful movement experiences, aiding the learner to understand better his body potentials, his self-potential. The content and method should be directed toward self-assessment, self-acceptance, self-assurance, self-striving for a more effective instrument. A movement vocabulary and movement literacy should be assured in elementary and junior high school. In senior high school and college, opportunity should be given for deeper self-awareness through movement experiences, for the continuing development of satisfying skills for leisure, and for the harmonious functioning of the total organism—which we call health.

It is essential that the individual, at each age level, be helped, through the physical education program, to be aware of his own individual need and capacity for work, for relaxation, for sleep, and for food. He should know how to conserve and how to spend energy, how to get release from strain and tension according to his own particular tempo and biochemical make-up, how to achieve and maintain fitness for the many demands of his daily life.

We shall need to develop new instructional materials for movement analysis and self-assessment. We need teaching machines and television instructional methods and materials. We should devise better ways to use the time of teachers and students as well as activity and classroom space. We may well need to regroup students into large numbers of 90-120 for some learnings and into small numbers of 10-15 for individualized instruction. We shall need to allow also for individual self-directed study and research. Meeting such needs will be impossible for some of the members of our profession and very difficult for others. For the able and creative, however, making programs for a new age will be the most exciting, stimulating, and creative experience in teaching.

Values To Keep Men Free

We are in, and shall continue to be in, a period of great ideological conflict. The struggle for men's minds certainly will be an on-going problem. Valuing each person as a human being regardless of race, color, or creed becomes a tremendous international challenge. Totalitarianism versus a democratic way of life will continue on a world-wide home base, with the acceptance of the interrelatedness of all peoples in sickness or in health, in war or in peace, being one of the central problems for education in the United States.

Movement programs must stress democratic values, relationships, and behaviors both in theory and in action. As we develop programs that enhance self-value, we set the base for the student's valuing others.

Youth should be freed for responsible action and self-direction. In an age of propaganda and mass production, particularly in the areas of health and personal appearance, we should teach students to solve problems through fact-finding, to act upon fact rather than upon advertising claims and half-fact. If we are to provide such a program, then we as teachers must search for a deeper perspective and new understandings of the meaning of movement to the individual. We must seek out and impart a deeper knowledge. We must use a more individualized method of teaching. We must free the student in the use of his own disciplined instrument for experiencing and expressing.

New Terminology—New Dimensions

If we are to provide opportunity for student learnings in relation to his own individual movement potentials, then within our own profession we must face the problem of the capacity and willingness to study in depth that unique contribution to human development for which we are responsible; to be creative; to be able to change; to forego vested interests and to contribute to the education of youth through all aspects of the discipline of human movement.

In spite of an increasing willingness in all parts of this country to describe our discipline as human movement, it may well be that our most difficult task will be to face the dilemma of an outmoded, inaccurate terminology. The term *physical education* does not suffice in a time when there is scientific validation of the sociopsychosomatic unity of the human organism. We must clarify what our discipline is so that we ourselves shall understand it and shall be able to communicate it to others. Will it be possible for us to get rid of the term *physical* and the term *education* and develop our discipline as the *art and science of human movement?* Such accurate terminology gives a whole new dimension to our professional field. It frees us to think creatively about movement programs. It frees us to design research studies in the various aspects of human movement within different cultural settings, and in the scientific aspects of movement meanings in the development of individual potential. This acceptance of new dimensions in our professional field is the *first* essential for today and for 1975.

JAY B. NASH

Things Change but Not Man

We cannot look ahead 2500 years and make many accurate predictions as to the status of man, but we can look back. We have reason to assume that man will not change very much physically, emotionally, or socially. The problems which the Greeks faced in connection with health, education, and even goodness are much the same problems which we face today and will be facing in the millenniums to come. Other things will change and they will affect man—the way he lives and acts or whether he will be alive at all.

Advancements in science are not following any nineteenth century curve. They are literally exploding around us. By the year 2000, we can expect a whole new family of materials now unknown to man. The era of the computers and photoelectric sensing devices will help man grapple successfully with the technological revolution which he is creating. New revolutions lie ahead in chemistry. New fibers and new finishes will come from the laboratories, affecting what we eat, wear, and use.

In spite of all these outward changes, man in any predictable future will be much the same. But some principles affecting him are eternal, and they apply to all education. Our profession should be guided by them, and the secondary school is the last chance to reach the masses.

Principle 1: Man Responds to Activity

Basic to all education at the secondary level and—for that matter—basic to life itself is the fact that man is an active organism. Through reacting to the environment and the needs to live, he grew and developed skills basic to existing, thinking, and feeling. This advance in the past was triggered by necessity. Man was kicked into activity by a hostile environment. He had to act. As the hostile survival-drive lessens, other activity drives must be developed—challenging work and recreation.

No educational theory has ever maintained that knowledge could be pumped into empty heads or that skill could be developed without exercise. It is universally accepted that nothing can be taught to anyone who is not active in learning. This is the law of use. That which is used develops; that which is not used atrophies. This concept is as old as teaching. We must then interpret the word *activity* in a much broader sense than that of mere movement or busy work.

Whether as a basis for work or recreation, activities of the hand, foot, and total body will lay the foundation for physical and spiritual normality and guarantee a steady advance in brain function. This is the "law of reach," and reach we must else "what's a heaven for?"

Principle 2: Man Develops Through Doing

Let us now note some specific application of the activity theory to physical education, health education, and recreation, based on the four levels of development: *organic* (body power), *neuromuscular* (skills), *interpretive* (thinking), and *emotional* (feeling).

Organic (Body Power) Development. The human body responds to the use theory—namely, power building—basic to youth but applicable to all life. Exercise lays the basis for fitness defined in terms of ability to resist fatigue and sustain effort. Use has spectacular application in the field of rehabilitation. A secondary school program should recognize this principle in curriculum planning.

Neuro-Muscular (Skills) Development. Skills once learned are never lost—just submerged in the subconscious mind—and can be called upon at any period of life. Therefore, a range of carryover skills is important for continued fitness and wholesome recreation.

Interpretive (Thinking) Development. The function of the hands in the long development of the brain is well known to the neurologist but largely unknown to the educator and parent. The hands are the "eyes of the brain." We literally "muscle in on the mind." When a child works with materials, he not only makes things but he makes himself. Man does not think in a vacuum. He thinks only when he meets a problem which he must solve, or at least wants to solve. The law of diminishing returns has already set in at the junior high school level, but a basic principle would involve widening the range of experience not only in body skills but also in human relations.

Emotional (Attitude Toward Fellow Men) Development. At the secondary level, the age-old, world-wide principle of *all men* should be stressed. Man should be recognized on the basis of performance. When he jumps, we measure and do not consider race, religion, or creed. For emotional stability, man must have hope of success in some significant area, and sports and games make up one of these areas. Hope is medicinal—it is therapeutic.

The secondary school can and should apply these principles and subprinciples to educational outcomes: *health, normality,* and *world citizenship.*

Outcomes in health refer to optimal ability in accomplishing a life task, not just the absence of disease.

Outcomes in normality refer to busyness and happiness in work, recreation, and human relations. Work—creative, challenging, and meaningful—is one of man's significant wants and needs. It is a path to normality. It is a hand on the back—one of man's great blessings. When work loses its significance and leisure turns to "dust in the mouth," as it has so often, then man has lost one of the spiritual forces of life. "If it were desired to reduce a man to nothing," wrote Fedor Dostoevski in *The House of the Dead,* "it would be necessary only to give his work a character of uselessness." Creative recreation could supplement routine work to give balance to life and support optimum health. Dr. Howard A. Rusk, director of the Institute of Physical Medicine and Rehabilitation, New York University, notes, "We are now in a position to cure many diseases and get people well, only to see many drop back into illness through the malignancy of misused leisure."

Outcomes in world citizenship assume that each man has a talent and a contribution to make and that he has a right to develop this bright spot. It upholds the thesis of the dignity of man.

No man can grow to cultural stature without belonging, without doing something significant for and in the group. Aristotle thought of the good men as the good workmen—workmanship in the craft sense as well as in the literary and social sense. Man's feet are in the "slough of despond," his head bent low before the mirror of his companions, until he has achieved and men can look up to him and say, "He is a master." The areas of achievement are so broad that every man, woman, and child can acquire self-respect and global citizenship from accomplishment and service. Physical education provides opportunities in this field.

A secondary curriculum in health education, physical education, and recreation must recognize these basic principles of education and life. Once recognized, our profession will have a secure place in the education plans of tomorrow's high school.

DOROTHEA M. LENSCH

Future Programs in Recreation

In the next twenty years, theories relative to the interplay of health, physical education, and recreation programs will become actualities. Schools in their classes of health and physical education, coupled with the arts, music, and drama, will afford students the opportunity to experience fundamental skills in these activities. A philosophy toward recreation will become a part of classroom teaching.

The experience of placing the skills into the formal structure of a game, dramatic production, or art show will be the responsibility of the recreation department, a separate body from the school administration, with its staff oriented to assimilate skills into the complete experience. The structure will be fluid, permitting experimentation and development of new outlets. Competition, based upon individual achievement, will result in participation for those of lower degrees of skill as well as those of a greater excellence. The drama, the music, and the dance will likewise explore the full range of experience in band, orchestra, dance workshops and production groups. Closely involved with this type of development is the training of student volunteers as managers, assistant coaches, directors, and choreographers.

The maturing of these skills is dependent upon the individual's interest and his personal desire to participate in the after-school day and during the summer and holiday seasons. With the interflow between the school's responsibility for the development of skills and the community's responsibility for the recreational satisfaction of physical, social, and artistic needs, there will be more time to provide a broad range of individual, dual, and team activities.

Communities will have sufficient outdoor and indoor facilities through cooperative land acquisition and development. The recreation resources of federal, state, and private agencies will supplement the facilities of schools and municipalities.

These achievements will be possible only when dedicated people are permitted to work constructively in a well-defined responsibility either in school or in the community. The fulcrum is leadership.

HAROLD D. MEYER

Looking Ahead with Recreation

Scanning the social horizon, one witnesses the growth of centralization, technology multiplying its forces, and mobility on the march. Urbanization and suburbia portray a metropolitan culture in an industrial civilization, and rising standards of living and social responsibility indicate new functions in the democratic process. Important among these modern trends are the growth of leisure in the life pattern of people and its significant acceptance as a way of life.

From figures and factors we have designs that create fabulous challenges for recreation during the next twenty years. Caution must be expressed, however, that recreation illiteracy is dangerous and that the misuse, abuse, and misinterpretation of one's leisure can bring about more individual and social pathology. The full realization of this fact by the youth of today can add greatly to the hope that the increase in leisure may be spent wholesomely.

At its best, the school is that institution which passes on to each generation the fundamentals of man's accumulated knowledge and guides a person's progress and social adjustment. These two functions of the school are becoming increasingly comprehensive and important as society becomes more and more complex.

Secondary schools of the nation should surely re-evaluate programs and curriculums to prepare properly the citizens of tomorrow. There are many worthy opportunities here—programs of cocurricular activities, integrations with community programs, teaching and learning the arts of leisure, and meeting the challenges for leadership in the recreation movement.

Multiple career opportunities have developed in public, private, and commercial recreation agencies and enterprises. A $45 billion business, estimated to become $70 billion by the 1970's, demands professional leaders trained and skilled to do the jobs necessary to provide recreation programs that ensure a maximum result for an enriched culture. The secondary school can prepare students to enter this promising vocational field through class instruction, career days, vocational guidance, courses in the sociology of leisure, teaching of skills, and cooperative projects with community recreation agencies. If we believe in the coming of a leisure culture, we must face the inevitable fact of the continued need for quality leadership.

CHARLES K. BRIGHTBILL

The Future of the Secondary School

The secondary school of the future, along with its elementary and collegiate counterparts, will need to prepare youth to live in a leisure-centered society. As Arnold Toynbee has said, "The creative use of leisure by a minority in societies in process of civilization has been the mainspring of all human progress beyond the primitive level." In this sense then, leisure is the finest of all human goods.

The secondary school of a democracy cannot be for minorities. It must be for *all*, if it is to serve at the heart of the democratic educational system. Therefore, it must align itself with the needs of all in a democratic culture, including the challenges of a vast new leisure.

Schools, as cultural institutions, do not stand alone. They stand with the habits, values, and behavior of the society they serve. They stand with what is done in the home and in the community, with what people do to make a living, with what and how people live. The future program of the secondary school must be shaped accordingly.

In a world which places a high premium on science, too often as a means of keeping one nation more powerful than another, it is easy to forget that the most important subject of the human race—and hence, of education—is, or should be, *man*. Not powerful, affluent, and possessive man, but resourceful, selfless, and creative man—and with leisure, *recreative* man.

Secondary schools of the future will have to help generate appreciations, develop interests, nurture values, and sharpen skills which go far beyond those needed in the world of work to those called for in living a *full* life. These skills will need to be those which aid body development, movement, and motor coordination, as well as those which contribute to safety and survival. They will have to include the qualities which will help make young people articulate, aid them in the social graces, and encourage them to use their creative hands. Those knowledges which help us understand our universe and savor all life must also come into the "mainland" of the secondary school program. Add to these the need for youth to learn to create and appreciate music, to express themselves through the written, spoken, and acted word, and to make fine literature a living part of their daily lives, and the immensity of the task can be comprehended.

All of these vital areas of living in a leisure-centered society will have to be arranged along a spectrum of varying degrees of interests, competencies, and opportunities, born of the conviction of choices—the *right* choices.

The real test of our future secondary school will be its capacity to help the high school student prepare not for a work-centered existence with educational progress measured solely in terms of the amount of predetermined formal knowledge he can cover in a given period of time, but rather for a leisure-centered life to which he eventually will have to give himself emotionally and intellectually.